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ESTABLISHED 1859.

**Subscription: Fourpence a Week, Ten Shillings a Year.
Summer and Winter Numbers, 1/- per Copy.**

Prix de l'abonnement: The Chemist and Druggist une fois par semaine, et l'agenda du Chemist and Druggist une fois par an, 12.50 francs par an, franco.

Abonnementspreis: The Chemist and Druggist einmal wöchentlich, und Notizkalender des Chemist and Druggist einmal im Jahre, 10 Mark jährlich, frei in's Haus geliefert.

Precio de suscripcion: The Chemist and Druggist unavez por semana, y el Agenda del Chemist and Druggist una vez al año 12.50 pesetas anuales franco.

Remittances Payable to EDWARD HALSE.

Postal Orders and Cheques to be crossed "MARTIN'S BANK (LIMITED)."

CHIEF OFFICES: 42 CANNON STREET, LONDON, E.C.

BRANCH OFFICES: 231 ELIZABETH STREET, MELBOURNE,
AND 114A PITT STREET, SYDNEY.

As an Official Journal

THE CHEMIST AND DRUGGIST is supplied regularly to every member of the following Societies:—

Pharmaceutical Society of Ireland.
Chemists' and Druggists' Society of Ireland.
Pharmaceutical Chemists' and Apothecaries'
Assistants' Association of Ireland.
South African Pharmaceutical Association.
Pharmaceutical Society of Natal.
Pharmaceutical Society of the South African
Republic.
Central Pharmaceutical Association of N.Z.
Otago Pharmaceutical Association, N.Z.
Pharmaceutical Society of Queensland.
Pharmaceutical Society of South Australia.
Pharmaceutical Society of Tasmania.
Pharmaceutical Society of Western Australia.

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TWO NEW BOOKS.

We have two books in the press, which will be published in a few weeks—viz., a volume of recipes and one of medical hints for chemists. We are reserving a limited space in each volume for advertisements, and any firms who would like to insert an announcement in either, or both, will please communicate with the Publisher, 42 Cannon Street, E.C. There is no question at all that advertising in these books will be good business, as both will be thoroughly popular with the trade. Notice in regard to the prices of the books and the date of publication will be given in due course.



PHARMACIES have recently sold in Germany at from 9,000*l.* to 25,000*l.* (p. 228).

THE SUCCESSFUL CANDIDATES at the various Irish examinations are named on p. 226.

A LIST of 164 persons who have passed the Preliminary examination is printed on p. 236.

CLOVES have excited Mincing Lane this week. We review the position in an article on p. 239.

THE SANITAS COMPANY'S dividend is announced at the rate of 13½ per cent. for the past year (p. 237).

MR. G. W. ISAAC succeeds Mr. B. Allen as President of the Bristol Pharmaceutical Association (p. 231).

SLIGHT FIRES are reported at chemists' shops at Douglas, Wrexham (p. 224), and at Londonderry (p. 226).

AN ARTICLE made from vinegar essence, and sold as vinegar, got a drug-store keeper fined at Rochdale (p. 244).

THE DRUG-SALES on Thursday left benzoin, cardamoms, ipecacuanha, calumba, and a few other drugs higher in price (p. 249).

INJUNCTIONS have been granted against three chemists in the Potteries who have sold spurious Beecham's pills (p. 244).

A CHEMIST'S ASSISTANT at Boston, and a chemist's apprentice at Harrogate, have poisoned themselves with prussic acid (p. 224).

THE ULSTER CHEMISTS (LIMITED) has been floated (p. 226). London financial papers have expressed unfavourable opinions concerning it (p. 237).

A FULL REPORT of the interesting speech made by the Lord Mayor of Manchester at the banquet given in his honour by the chemists of Manchester is given on p. 246.

A PORTRAIT and sketch of M. Scheerer-Kestner, the French chemist and senator, whose recent action in stirring up the Dreyfus case has made him famous, is published on p. 247.

A CRITICAL REPORT of the examinations in Edinburgh was read at the meeting of the Pharmaceutical Council. The inefficient preparation of the candidates was its principal moral (p. 234).

MR. F. P. SARGEANT makes it plain in the article printed on p. 242 that competent pharmacists may make bacteriological examinations of water, &c., without much trouble, and with some kudos.

A ROCHESTER DOCTOR has explained to a Coroner's jury how necessary it is that more than one feeding-bottle should be in the house at the same time when a child is being fed with one (p. 225).

THE COUNTY COURT CASES reported this week are interesting. One concerns notice to an assistant, others refer to a bottle-contract, to a collision of vans, to the extraction of teeth, to the responsibility of an employer for an errand-boy's accident, and to the rent of carbonic acid tubes (p. 243).

MESSRS. COWLEY AND CATFORD have reported a series of pharmaceutical experiments to the Liverpool Chemists' Association, which go to show that acetic acid has no advantage over weak spirit as a menstruum for colchicum. Their work corresponds with that lately reported by Messrs. Farr and Wright (p. 229).

THE NUMBER of chemists and druggists on the Register is reported to be 15,215 at the end of 1897, a net increase of 49 over the previous year's figures. The membership of the Pharmaceutical Society shows a decline, which is not balanced by a slight increase of associates in business and students. A net loss of 23 is recorded (p. 233).



Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Fires on Chemical-premises.

At 10 o'clock on Sunday night (January 30) the warehouse of Mr. Iverson Wilson, chemist, Fore Street, Douglas, was discovered to be on fire. A pony, in a stable forming part of the warehouse, was rescued, but a quantity of hay was burnt.

On February 1 a fire occurred in a room attached to a shop in High Street, Coedpoeth, Wrexham. The room contained a quantity of chemicals and fixtures, the property of Mr. James Price, chemist. Most of the contents were destroyed, the damage being covered by insurance.

In the report to the L.C.C. dealing with the fires in London during 1897, the chief officer of the Metropolitan Fire Brigade stated that the total number of fires during the year on chemists' premises, which include all places in which are laboratories for chemical-purposes, was 23. The causes are given as follows:—Fat boiling over, 1; candle, 1; curtains coming into contact with gaslight, 1; escape of gas, 1; light thrown down, 4; light thrown from street, 1; mineral-oil lamp upset, 1; overheating of boiler, 1; overheating of furnace, 1; overheating of gas-stand, 1; spark from fire, 2; swinging gas-bracket, 1; vapour of spirit coming into contact with flame, 1; unknown, 6. Wholesale druggists, 6 fires; cause: gas-stove, 1; unknown, 5.

Explosion of Creosote Oil.

A fire broke out on Saturday afternoon, January 29, at Messrs. Mawson & Clarke's oil and grease works, Walker, Newcastle-on-Tyne. The works are situated near the railway, which at this part is a network of rails of many acres' extent. A very large crowd collected to witness the fire, attracted by the immense volume of black smoke and flame. Railway traffic had to be suspended, and the staff turned out to save as much railway property as possible. The fire had been burning some time when a terrific explosion took place, due, it is thought, to the impinging of water from the fire-hose on to a tank containing about 16 tons of burning creosote oil. As a result of the explosion, two men were killed and twenty-five people so seriously injured as to necessitate their detention in the infirmary. There seems to be a fatality attached to the name of "Mawson" in this district. John Mawson, of Mawson & Swan, chemists, while sheriff, was killed on the Town Moor, some twenty years ago, while superintending the destruction of a quantity of nitro-glycerine, and in recent years the same firm have had two or three disastrous fires resulting in considerable loss of life. The most recent one was six years ago, when several firemen were killed through inhaling nitric-acid fumes in the cellars of the premises. There is no connection between this firm and Mawson & Clarke.

Suicide of a Chemist's Apprentice.

An inquest was held at Harrogate on January 29 touching the death of Joe Heap (16), an apprentice with Mr. J. H. Wilson, pharmaceutical chemist, Harrogate. The evidence of Miss Edith Heap, his sister, was to the effect that on Thursday night deceased went to bed at 10 o'clock, and on calling him on Friday morning she could get no response. A labourer who was passing entered the room by the window and unfastened the door, when she saw deceased lying dead. There were two poison-bottles on the washstand, and two notes written in pencil. One to Mr. Wilson was as follows:—

DEAR SIR,—I am very sorry, sir, but I have been thinking about what will soon happen for this last three weeks. I hope this business will not affect your trade, but that you will prosper.

Good-bye, mother; good-bye, father; good-bye, Annie; good-bye, Charlie; good-bye, Aunt S. A. This is why I have not written to you since I came back at Christmas oftener. Good-bye to all of you. (Here follow three crosses.) Don't make any fuss about me. Ring father up at the shop, please, Skelmanthorpe, No. 16, Huddersfield.

Deceased had never spoken a wrong word about Mr. Wilson or Mr. Sugden. Mr. Herbert Sugden, manager for Mr. Wilson, said that he had never had to find fault with the deceased. The deceased had to dust the drug-bottles, and had access to them. The prussic-acid bottles produced were used in making up prescriptions, and contained 1 oz. each. After other evidence the jury returned a verdict that the deceased committed suicide whilst labouring under a fit of temporary insanity, by taking poison, and that no blame attached to anyone.

Chemist's Assistant's Suicide.

The cause of death of Bertie H. Richmond, aged 24 years, assistant with Mr. C. F. Cooke, chemist and druggist, Boston, was investigated by the Coroner on January 29. On the previous evening deceased went into the Ram Hotel and asked for whisky but, not being sober, the landlord persuaded him to have some soda-water. He was then seen to drink from a small bottle, after which he fell down and died in a few minutes. Mr. C. F. Cooke said deceased had been with him six months, and was clever at his business. On Friday he had had occasion to remonstrate with him on his coming in intoxicated, and gave him a draught of 6 drops of hydrocyanic acid and 2 dr. tincture of gentian, allowing him to sleep till tea-time. The Coroner asked if 6 drops of the acid was a safe dose, and witness replied he had known 8 drops taken by people when in drink. He (the witness) believed it was often taken by chemists' assistants when addicted to drink. Deceased went out after tea, but did not return as promised. The bottle he identified as one that had been taken from his shop. The jury returned a verdict of suicide by prussic acid, and added there was no evidence as to the state of his mind at the time.

Fatal Accident in a Chemists' Warehouse.

James Baron, a porter, 80 years of age, in the service of Mr. W. Mather, wholesale chemist, Hulme, Manchester, slipped with his foot down the hoist-hole while dragging a box of bottles to the aperture on January 13 and sustained a fracture of the thigh, which resulted in his death a few days ago. The Coroner held an inquest on the body, which was attended by Mr. Rogers, factory-inspector. A verdict of accidental death was returned.

A Choice of Causes.

The Nottingham Coroner held an inquest on January 25 on the body of a child 5 years old, whose death took place at the Children's Hospital, Nottingham, on the previous day. The child was brought to the hospital on January 13 by the mother, who said she had given the child half a "Daisy" powder, but the child not getting better, she took it to the hospital. Dr. Peskett, honorary medical officer, and Mr. Temple, house-surgeon, both formed an opinion that it was a case of belladonna-poisoning, although a *post-mortem* examination did not support their views, and they were now inclined to think that influenza, appearing as it does in many forms, had caused death. The inquiry was adjourned for a fortnight, to allow of an analysis of the other half of the powder, which had been handed to Mr. Temple by the mother.

Juries on Carbolic Acid.

At an inquest on January 26, at Hammersmith, on a coachman who committed suicide by carbolic acid whilst suffering from influenza-depression, the jury added a rider to the effect that some restriction should be placed on the sale of carbolic acid.

Cocaine-poisoning.

An inquiry was held on January 24 into the death of Miss Beatrice Sherer, daughter of Alderman Major-General Sherer, which took place at St. Leonards. Deceased had been unwell since November, having caught a chill after a ball. On the Thursday previous to the inquest, while her parents were dressing for the mayoral reception, deceased com-

plained of sickness, and was seized with convulsions. Death was found to be due to an overdose of cocaine "taken during a fit of temporary insanity."

Medical Officers and Water-analysis.

The Isle of Thanet Board of Guardians have a dispute with their medical officer respecting the analysis of samples of water similar to that which has occurred at East Ashford. The Board had passed a resolution to the effect that Dr. Robinson should be given no information respecting the locality and surroundings from which samples were taken. Dr. Robinson protested, but the Board, on re-discussing the question, decided not to entertain Dr. Robinson's application.

Infirmary Drug-bills.

The following are a few of the drug-bills for last year at infirmaries and dispensaries. At Faversham Dispensary the drug-bill came to 60*l.* 4*s.* 8*d.*; at Rochdale Infirmary drugs and surgical appliances cost 245*l.* 12*s.*; at Stroud General Hospital drugs and surgical instruments, 250*l.* 8*s.* 4*d.*; at the West Kent General Hospital, Maidstone, 543*l.* 7*s.* 11*d.*; at the Chelmsford Dispensary for drugs 239*l.*, and for surgical appliances 62*l.*; and at Barnstaple and North Devon Dispensary, 322*l.* 12*s.* 9*d.*

Drug-contracts.

The Chelsea Vestry have accepted the tender of Messrs. Dusseck (the present contractors) for the supply of disinfectants for 72*l.* 13*s.* 4*d.*

At a meeting of the Manchester Board of Guardians a discussion was raised on the question of purchasing all drugs by contract, and suggestions made that steps be taken to reduce the amount paid outside the contracts. A cheque for 170*l.* was paid for contract-goods, and a further account of 164*l.* for drugs obtained by open orders.

St. Helen's Chemical Society.

The second meeting of this Society, which was founded in October last at the Gamble Institute, St. Helen's, took place on January 13, Sir David Gamble, Bart., in the chair. Among those present were Drs. Best and Ormandy and Messrs. Wyld, Kynaston and Broomhead. Dr. Best, in thanking Sir David Gamble for accepting the presidency offered him at the last meeting, said he hoped Sir David's influence and presence would encourage and aid the young Society. Mr. Gulliver then gave the results of some experiments dealing with the action of chlorine on very dilute caustic potash at various temperatures. Dr. Ormandy concluded his paper on "The Theory of a Simple Equation."

Röntgen Rays in Hospitals.

At the annual meeting of Stroud General Hospital it was announced that a Röntgen-ray apparatus had been subscribed for and placed in a special room, as an assistance to the medical-staff diagnoses.

A. "Sequah's" Cab-fares.

At Torquay Police Court on January 24, Alec "Sequah" was sued for unpaid cab-fares amounting to 21*s.* The cab-proprietor said "Sequah" asked him to wait for his money as business was dull, and afterwards when he was better off refused to pay. The Bench gave judgment for plaintiff.

The Canvasser and the Pharmacist.

At the Manchester City Police Court, on January 28, a young married man, named Albert Turner, pleaded guilty to charges of obtaining and endeavouring to obtain money by false pretences from tradesmen by soliciting advertisements to be inserted in Crane's "Commercial Directory." The prisoner had gone to Mr. Charles Turner, a pharmacist and teacher of pharmacy, at 207A Oxford Street, and asked for 10*s.* for a repetition of his advertisement in the Directory. It so happened that Mr. Turner had been visited a fortnight previously by the authorised agent of the Directory, and had concluded his arrangements. The prisoner produced a receipt-book and a form, the like of which he had seen previously, and knew to be a fraud. He therefore gave the pseudo-canvasser into custody. One of the man's inducements for Mr. Turner to "pay up" was he should have a free

copy of the Directory. "But," said Mr. Turner, "I had been told the same thing on a previous occasion and never got it." (Laughter.) The prisoner, finding he was collared, begged Mr. Turner not to be hard upon him. The Stipendiary committed the accused for trial at the Sessions.

Alcoholic Temperance-drinks.

At Barnstaple Police Court on January 27 Thos. W. Gent was summoned for selling cider without a licence. Mr. W. Burge, a Somerset House analyst, stated that the sample of cydrena, a "sparkling, non-intoxicating fruit-drink," contained 4.5 per cent. of proof spirit. Defendant stated that when bottled the liquid contained 13 per cent. of proof spirit; but Mr. Burge replied that if anything like 2 per cent. had generated the bottle would have burst. Defendant was fined 10*s.* and costs.

Damaging Rival Syphons.

At Macclesfield Police Court, on Monday, Arthur Bond, a Manchester carter, was charged with wilfully and maliciously damaging two mineral-water syphons, the property of Messrs. Jewsbury & Brown, Manchester, on January 4. The evidence showed that the defendant was engaged as a carter to another firm of mineral-water manufacturers, and visited the rear of the establishment of Mr. Robert Cadman, chemist and druggist, Wilmslow, for the purpose of sorting out soda-water bottles belonging to his employers. Whilst thus engaged he threw two of Messrs. Jewsbury & Brown's syphons over a wall, smashing them. The defendant, who expressed his sorrow, was fined 4*s.*, the value of the syphons, 1*s.*, and the costs.

One Feeding-bottle Insufficient.

At an inquest held at Rochester, on January 29, respecting the death of an infant, the mother stated that the child had been partly fed on Nestlé's Swiss milk from a feeding-bottle which it transpired was an old one. Dr. Frank Cowan, who attended the child, admitted that if Nestlé's milk was properly diluted and the bottles and vessels kept sweet and clean many children would thrive upon it. It would be perfectly impossible, however, for any milk to be kept fresh if only one feeding-bottle was in use. The india-rubber tube in the bottle would absorb the milk and cause the tube to become foul. A verdict of death from misadventure was returned.

Chemists' Competition.

The Kentish town of Ashford, with a population of about 12,000, has seven chemists' establishments, six of which are within a stone's throw of each other. Messrs. Walker & Harris, of Canterbury, have just opened a branch, and are circulating a price-list to every house in the town. Messrs. Brothers & Guttridge are also sending to every householder in the town and neighbouring villages "a medical dictionary," combined with "a cash-price list."

Preserved Green Peas.

The London Chamber of Commerce is endeavouring to get provincial Chambers to support it in a proposal that the quantity of sulphate of copper which would be non-injurious to health, and permissible in the preparation of preserved green peas, should be authoritatively determined by a Commission of Inquiry, and that local authorities should receive instructions not to prosecute in cases where an analysis showed that the limit was found not to be exceeded. The Manchester Chamber does not favour the London proposal, on the ground that the subject will probably be dealt with in the Bill contemplated by the Government on the lines recommended in the report of the Select Committee on Food-products Adulteration, 1896.

Viscount Peel Values Advertising.

Viscount Peel, in a speech he made on the occasion of a presentation to Dr. and Mrs. Thrusfield in recognition of their services to Leamington Spa during the doctor's three years' mayoralty, on January 28, advised the town to advertise, so that the advantages of the Royal Spa might be more widely known. He believed the waters had qualities which, if fully known and advertised, would bring larger numbers of visitors and increased prosperity to the town.

Chemists at Football.

On Saturday, February 5, the Pharmaceutical F.C. will play the Metropolitan College of Pharmacy at Wormholt Farm, Shepherd's Bush. Kick off at 3.

The Metropolitan College of Pharmacy F.C. and the Westminster College of Pharmacy F.C. met at Hyde Farm, Balham, on January 29 for their return-match. The Metropolitans scored 5 goals and the Westminsters 1.

The return-match between the Pharmaceutical F.C. and the Hon. Artillery Company was played on Saturday last at Finsbury. The game was keenly contested, the Pharmaceuticals having what there was of advantage. They had almost secured a victory, but their opponents managed to make the score even (2 all) a minute before time. The Pharmaceutical team was composed as follows:—Prescott, goal; Jones and Lescher, backs; Evans, Nelson and Happold, half-backs; Warren, Cardwell, Owen (centre), Day and Merrikin, forwards.

Stealing Teeth.

At Folkestone Police Court on February 1, Lance-Corporal Woolf was charged with stealing four sets of false teeth, value 2*l.* 10*s.*, from a show-case affixed to Bishop's Drug-stores, in Tontine Street, Folkestone, on the previous evening. Prisoner was drunk, and showed the teeth to P.C. Taylor outside the Town Hall, and said, "They must be a lot of mugs in Tontine Street." An officer gave the prisoner a good character, but said he had been missing since January 26, when his furlough expired. He was to have gone to India, but his place had been filled up. Prisoner, who pleaded guilty, was sentenced to six weeks' hard labour.

Administering Arsenic to Horses.

At the North Holland (Boston) Petty Sessions on January 26 William Stevenson, jun., horseman, was summoned by Mr. J. T. Smeeton, farmer, of Kirtou, for administering arsenic to a horse, the property of the prosecutor. The prosecution was undertaken by the Lincolnshire Society for the Prevention of the Administration of Poisonous Drugs to Horses. Defendant and his father were the only servants employed on Mr. Smeeton's farm. Two horses, valued at 60*l.* or 70*l.* each, died, and a third horse was attacked, but recovered. On the death of the second horse suspicion was aroused, and a *post-mortem* examination was held, when it was discovered that death was the result of arsenical poisoning. A tin containing arsenic was found concealed in the chaff-house, to which defendant had sole access. The Bench found defendant guilty, but said they did not think he had any intention of killing the horse. He was fined 3*l.* and 5*l.* 13*s.* costs.



Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Pharmaceutical Society of Ireland.—January Examinations.

The following were the successful candidates:—

Preliminary Examination:—James Dale, Belfast; Christopher Doorly, Roscommon; Roger Goodwin Greer, Dublin; Leonard Jennett, Belfast; Henry Knight, Dublin; William George Whittaker, Dublin. Five candidates were rejected.

Pharmaceutical Licence Examination.—Alfred Arthur Brunker, Dublin; Leopold Henry Grubb, Dublin; Robert Alexander Jones, jun., Warrenpoint, co. Down; Andrew McClure, Dublin; Charles Stanislaus O'Hare, Cork; William James Pollock, Ballymoney, co. Antrim. Eight candidates were rejected.

Pharmaceutical Assistants' Examination.—William Murphy Kennedy, Dublin; Donald Neil Stewart, Londonderry.

Registered Druggist Examination.—Anna Elizabeth McIlroy, Belfast; John Joseph White, Skerries, co. Dublin. Two candidates were rejected.

The B.P.C. at Belfast.

We are informed that the President of the Queen's College, Belfast, has graciously consented to place the whole of the College Buildings at the services of the Ulster Executive Committee for the Conference meetings in August.

A Richmond in the Field.

The Board of Governors of the Richmond District (Longford) Lunatic Asylum were discussing the desirability of opening the drug-supply to contract. The Chairman said that the system formerly had been to invite contracts, but now they were supplied by one firm. After some talk the matter dropped, it being understood that it would come up again at the proper time.

The Assistants' Ball.

The second annual ball of the Irish Pharmacists' Assistants' Association was held in the Pillar Room, Rotunda, Dublin, on January 26. Dancing was timed to begin at 9 P.M., but before that hour the room was well filled, and when, shortly after 9, the President (Mr. W. J. Hardy, M.P.S.I.) opened the dance the place was thronged almost to inconvenience, upwards of eighty couples being present. The musical programme was under the direction of Mr. Oscar May, whose string band well sustained its reputation. The pieces (twenty-four in number) included the most up-to-date dances. Messrs. W. Vincent Johnston, M.P.S.I., and W. J. Dunwoody, M.P.S.I., acted as Masters of Ceremonies. Dancing was kept up until 4 the following morning.

Pleased with the Pharmacists.

The drug and medicine contractor to the Clonslee Dispensary district was told, at the last meeting of the Board, that the Guardians were very pleased with him for supplying medicines which on analysis turned out to be satisfactory in every respect.

At the annual meeting last week of the Governors of the Samaritan Hospital, Belfast, Messrs. Nicholls & Co., pharmacists, were complimented on the way they had, as in former years, supplied and efficiently dispensed the medicines.

Business Changes.

Messrs. Leonard & Co., apothecaries, 19 North Earl Street, Dublin, have opened a handsomely-fitted branch at 28 Bolton Street.

Last week, at Belfast, the premises at 20 and 22 Castle Place, together with the pharmaceutical business attached, formerly carried on by Mr. Wm. Pratt, were put up for public auction. The biddings commenced at 3,000*l.*, and after spirited competition were knocked down for 4,450*l.* to Mr. Martin H. Turnbull.

The Ulster Chemists.

A considerable number of transactions took place last week on the Dublin and Belfast Stock Exchanges in the ordinary and preference shares of this company, and the prices ranged at from 2*s.* 6*d.* to 5*s.* premium. The applications for shares are reported to have been very numerous, and it is stated that the issue has been well over-subscribed for. Mr. S. Gibson has been appointed managing director.

Fire.

Messrs. D. Galbraith & Co.'s drug and chemical concern, Strand Road, Londonderry, has been the scene of a fire, the cause of which is not known. Promptly-rendered assistance, however, checked the spread of the fire, and not much damage occurred.

A Belfast Herbalist's Medicine.

At a resumed inquest held at Belfast, on January 31, it appeared that the deceased, John Bell, a drayman, had been in ill health for some time past, but obtained no medical advice. His widow said the only medicine he took was supplied by a herbalist named Baird, of James Street. She did not know if he was a medical man. He had always done her good, and his medicine always relieved her husband. He took it for everything, internally and externally. The medicine was called "Baird's hot bottle." She had given her husband a little in hot water on the morning of his death. Mr.

Hodges, Government analyst, had examined the contents of the bottle. He found it consisted of a solution of ammonia and water, with a trace of chloroform and a trace of alcohol. Dr. J. L. Smith, Professor of Pathology in the Queen's College, had made an autopsy of the body. He found acute peritonitis, brought about by a perforation of the stomach by an ulcer, to be the cause of death. Dr. J. S. Morrow corroborated, and said no medical practitioner would treat peritonitis with the mixture described. He declined to say, however, that the medicine given had accelerated death. The Coroner said no one appeared to be responsible for the man's death, but he thought the attention of the Pharmaceutical Society should be drawn to the practice of unqualified persons making up medicine. The jury returned a verdict of death from peritonitis, and declined to accept the Coroner's suggestion to add a rider bringing the case under the notice of the Pharmaceutical Society, and the Coroner said he would do so himself.



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Edinburgh District Chemists' Golf Club.

The adjourned annual meeting of this club was held at 36 York Place on February 1. Mr. W. B. Cowie, Treasurer, submitted his annual report, which showed a substantial credit balance. Eight new members were elected.

Glasgow School of Pharmacy.

The first annual supper of this school took place at the Bath Hotel on January 21. A company of seventy students and friends assembled under the presidency of Mr. W. L. Currie. A toast-list was gone through, and various members of the company contributed music.

The Aberdeen Juniors' Dance.

The annual dance of the Aberdeen Junior Chemists' Association was held in the Royal Hotel on Friday, January 23. Dancing commenced at 8 o'clock, and was carried on with great enthusiasm until 1.30 on Saturday morning. Messrs. Milne and Pirie discharged the duties of M.C.'s. About forty couples were present.

Chemists as Sub-Postmasters.

A meeting was held at Glasgow on January 27 for the purpose of forming a branch of the National Federation of Sub-Postmasters. Mr. Cussons, chemist, of Ossett, Hon. Secretary of the Federation, addressed the meeting, and reviewed the position since the Tweedmouth Commission report, which seemed to indicate, he said, that those sections of the service that received anything at the hands of these gentlemen were those which had the biggest associations. The only recommendation that the Commission made was that the sub-postmasters might be allowed a scale of pay. He urged the meeting to combine with the many branches of the Federation already formed in all parts of the kingdom for the improvement of their position in the service. It was then agreed to constitute a branch of the National Federation of Sub-Postmasters for Glasgow district.

On January 26 a similar meeting was held at 5 St. Andrews Square, Edinburgh, which Mr. Cussons also attended. An Edinburgh and District Branch of the National Federation was then formed; Mr. James Dick, chemist, Jock's Lodge, Edinburgh, was elected Hon. Secretary, and Mr. Coats, pharmaceutical chemist, Ferry Road, Leith, Vice-President.

Glasgow Parish Medicines.

At a meeting of the Glasgow City Parish Council on Tuesday, February 1. it was reported that four offers for the supply of medicines to the parish dispensary for the en-

suing six months had been submitted to the Medical Committee, and that the offer of Messrs. Brown Brothers & Co., amounting to 105*l.* 0*s.* 4*d.*, was accepted. The Council approved. The Medical Committee, it was reported, also made the following purchases:—From Messrs. J. J. Findlay & Co., 120 lbs. of cotton-lint at 10½*d.* per lb.; from the Glasgow Apothecaries' Company, 160 lbs. castor oil at 4½*d.* per lb.; from Mr. James Taylor, 10 gallons olive oil at 5*s.* per gallon; and from Messrs. Brown Brothers & Co., 50 gallons of cod-liver oil at 7*s.* per barrel of 25 gallons. The minutes of the Medical Committee also showed that during the past month 7388 prescriptions had been made up in the parish dispensary in Parliamentary Road for the indoor poor, and 573 for outdoor poor. The outdoor poor had also 204 prescriptions made up in the following private dispensaries:—The Glasgow Apothecaries' Company, 20; Messrs. J. & R. Rodman, 69; and Mr. D. P. Walker, 115.



Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

The Boracic-acid Prosecutions.

The Pontypridd Grocers' Association have decided to convene a conference of all the grocers' associations in the county, at Pontypridd, to consider what steps should be taken by the trade in the present conflicting state of judicial opinion on the matter of boracic acid in butter. Dr. Walford, of Cardiff, had, it was stated at the meeting, reported that day upon the subject to the Corporation there that his views restricted the proportion of boracic acid still further than that fixed by the medical officer to the Glamorganshire County Council. It was felt that the position was as untenable as it was absurd that two County Councils, both within twelve miles radius, should in this case fix two different limits for the trade.

French News.

(From our Paris Correspondent.)

A PARCEL-POST has been established between France and Australasia.

TURNING A DIFFICULTY.—A few months ago the Mother Superior in charge of the hospital of Bourg St. Maurice, near Moutiers, was prosecuted at the instance of a local pharmacien on the charge of illegal practice of pharmacy, she having adopted the habit of selling medicines and remedies to the poor. The committee of the hospital, with the local mayor at their head, have met the difficulty by engaging a qualified pharmacien for the establishment, and they intend to put him in charge of a pharmacy of greater extent than the one originally connected with the hospital.

THE UNQUALIFIED PURCHASER.—A lawsuit took place in Paris a short time ago in which the subject of dispute was the sale of a pharmacy. M. Camus, a pharmacist established in the rue Sedaine, Paris, transferred his business last spring to a M. Maurin, and as the latter was not yet in possession of his diploma, he entered in possession at once as manager only, and was to take over final possession last November. Meanwhile he paid down a certain sum of money in cash, and gave bills for the balance of the purchase-price, but when the time came to close the transaction, Maurin was still minus his diploma, and declined to carry out the terms of his engagement. In this he had the law on his side, and judgment was given for him, though Camus might have held him to the agreement had the

contract stipulated that the sale would be effected in November, or at such time when Maurin had taken his diploma. The latter stipulation in itself forms a large loophole, and would have made the transaction a shadowy one at the best.

DEATH OF DR. PÉAN.—In Paris last Sunday morning the well-known Dr. Péan succumbed to a sudden attack of acute pneumonia, and by his death French surgery loses one of its most skilful members. He was 67 years of age, and was known as an operator of extraordinary skill. He it was who introduced into France the operation of ovariectomy. I have met Dr. Péan occasionally during recent years, and always found him pleasant and entertaining, though by no means a conversationalist. He was somewhat fond of relating the fact that he had risen from the ranks, his father having been a country miller. Once he said to me, "I owe my introduction to surgery to the fact that my father once came to Paris to have a small operation performed, and found the price so high that he thought it would be a good profession for me." Dr. Péan did not profess to be a philanthropist, and to well-to-do people his fee for an operation was 6,000f. (240*l.*), paid in advance, but he was invariably kind to the poorer classes.

A PROVINCIAL CUTTING PHARMACY.—The proprietor of a cutting pharmacy, known as "La Pharmacie Nouvelle," at La Châtre, near Chateauroux, has been prosecuted by the local pharmacists' syndicate. The grounds for the action were that the real owner of the business was not a pharmacist, and merely carried on trade as a commercial speculation under the cover of an assistant's diploma. M. Michaud was the defendant as the supposed owner, and M. Monceaux, said to be his assistant, appeared to answer the charge of conspiring with him to frustrate the law. In the course of the evidence it transpired that M. Michaud owed the prosecution to the spite of one of his relations, a M. Pigelet. This man made a long and detailed statement in court to the effect that Michaud conceived the idea of starting a pharmacy at La Châtre, and secured from Paris the services of Monceaux, who became his *prête nom*. A discharged servant also gave evidence to the effect that Monceaux always kept the key of the cash-box. On the other hand, witnesses were called to prove that Monceaux is the real owner of the pharmacy, and that all transactions are carried on in his name. M. Siboulet, for the pharmacists' syndicate, asked that an example should be made of a man who was almost openly defying the law, and said the syndicate claimed 10,000f. (400*l.*) as damages. On behalf of the defendants, M. Lucas showed that Monceaux was sole owner of the pharmacy, and he dwelt in touching terms on the benefits of cutting pharmacy to suffering humanity at large and especially at La Châtre. Monceaux, he said, belongs to a highly respected family, his brother being a pharmacist in business at Auxerre, while he has a sister who is a member of the religious order of St. Vincent de Paul and nurse at a hospital, where she distributes medicines at lower rates even than those charged at the incriminated cutting establishment. This statement caused applause in court. Michaud was held up as a man of unimpeachable integrity, the victim of cruel machinations by members of his own family. In the end a verdict was given for the defendants, a counter-claim by them of 1,000f. (40*l.*) for malicious prosecution being allowed.

Colonial and Foreign News.

THE DANISH PHARMACOPŒIA.—A Supplement to the last edition (1893) of the Danish Pharmacopœia has just been published. It contains a few alterations and additions, amongst the latter being formulæ for several fluid extracts, and monographs on phenacetin, salipyrin, and bismuth subsalicylate.

AGAINST THE STORES.—A Bill has been introduced into the Legislature of New York State which has for its object the control of pharmacy in Greater New York by the exclusion of department stores. It is proposed to do this by giving the Board of Pharmacy complete control in regard to the issuing of licences for pharmacies, and to make it an offence for a qualified pharmacist or anyone else to open a

pharmacy which is not registered. The Board, it is assumed, will take good care that none but registered pharmacists' stores will be licensed. The Bill has been referred to a Committee, and the promoter of it appears to be sanguine of its success.

VANILLA IN CEYLON.—A young German who has been tea-planting in Ceylon for some years has purchased an estate of nearly a hundred acres, on which he intends cultivating vanilla.

WOMEN IN PHARMACY.—Austrian and German pharmacists have again had their citadel attacked by the gentler sex, but with no more success than an admission that while it may be good to have a few women as doctors, they would be utterly out of place in a pharmacy.

HUNGARIAN CASTOR OIL.—A company has been formed in the South of Hungary for the purpose of developing the manufacture of castor oil at Temesvar, where it has been carried on for some time. It is proposed to cultivate the Palma Christi there, as well as to import the seed of the plant for pressing.

SACCHARIN IN GERMANY.—It is proposed to appoint a Commission of the Reichstag to inquire into the tax levied upon saccharin, which is causing a good deal of heart-burning, one party maintaining that the sweetener is in the nature of a drug, so should be free, the other that it is a sugar-substitute, and ought to pay more than it already does.

HIGH-PRICED PHARMACIES.—The limitation of pharmacies in Germany naturally adds greatly to the value of them, as may be judged from the prices obtained for several which have recently been sold:—An apotheker in Schroda, 180,000m. (9,000*l.*); Löwen Apotheke, in Glogau, 245,000m. (12,250*l.*); Alder Apotheke, in Würzburg, 276,000m. (13,800*l.*); Alder Apotheke, in Gleiwitz, 470,000m. (23,500*l.*) and the Hof Apotheke, in Freiburg, 500,000m. (25,000*l.*).

KEKULÉ MEMORIAL.—It is proposed to institute a memorial to the late Professor August Kekulé, and a committee of professors, chemical manufacturers, and others in Bonn are working in the matter, while it has the endorsement of the German Chemical Society. Dr. J. F. Holtz, the treasurer of the Society, 170-171 Müller Strasse, Berlin, and Mr. Jos. Luntz, 63 Poppelsdorfer Allee, Bonn, are receiving subscriptions. It has not yet been decided what form the memorial will take.

PHENACETIN IN U.S.A.—A new phase of the phenacetin trouble has been exposed in Chicago, where a man has been selling a "Phenacetin-Schuchardt" to druggists at 40c. per oz. The man says he is not violating the rights of the American lessees of Phenacetin-Bayer, as the recent decision of the United States Court of Appeals made it clear that the trade-mark taken out is "Phenacetin-Bayer"; that phenacetin is a generic term, and can only be trade-marked when coupled with some other name not generic; and that Dr. Theodor Schuchardt's process of manufacture is different from the Bayer process, and therefore no infringement of the patent.

CHEMISTS AND THE N.Z. SHOP-ASSISTANTS ACT.—On December 8 the Chief Justice of New Zealand heard an appeal against the decision of the Magistrate's Court convicting Mr. R. M. Gatenby, of Wanganui, N.Z., of an offence under the Shop-assistants Act of 1894, and Amendment Act of 1895. When ordinary shops were closed Mr. Gatenby had offered to sell a photographic camera. The Magistrate held that although photographic goods are commonly sold in chemists' shops and the trade in cameras is principally in the hands of chemists, a chemist's business is confined to the sale of chemicals, pharmaceutical preparations, and surgical appliances. The Chief Justice, however, held that a great variety of things were ordinarily sold in chemists' shops that did not fall within the limits defined by the Magistrate. Photographic goods were articles commonly sold at chemists'; among those goods were cameras, therefore the shop was within the exception of the Act. If the Magistrate's definition of a chemist's business were correct, very few chemists' businesses, as now carried on, could continue. His Honour therefore thought that the conviction must be quashed. His Honour agreed that a chemist who dealt in articles not ordinarily dealt in by chemists in general could not keep his shop open.

The Winter Session.

PHARMACEUTICAL SOCIETY OF IRELAND.

THE usual evening meeting for the discussion of scientific subjects was held on January 31, when an interesting lecture on "Insects, and how to Catch, Preserve, and Classify them" was delivered by Mr. GEORGE H. CARPENTER, B.Sc. The President of the Society (Mr. R. J. Downes) occupied the chair, and the lecture was illustrated by upwards of one hundred lantern-slides.

The PRESIDENT, in introducing Mr. Carpenter, humorously alluded to the not infrequent calls on the chemist for bottles to exterminate insects. He first became interested in the capture of Mr. Carpenter through the appearance of a strange insect in his (the President's) place of business. He showed the specimen to one of the audience, and subsequently to Dr. Scott, who, by the way, was the first to tell him that a wasp had a face. Dr. Scott recommended him to bring the insect to Mr. Carpenter, and he did so, with the result that he prevailed on that gentleman to give this lecture.

Mr. CARPENTER, who spoke fluently and without notes for close on two hours, discoursed on the life and habits of moths, butterflies, gnats, &c., the familiar cockroach of the kitchen, and its less harmless brethren of the beetle kingdom at home and abroad. He dealt with the methods adopted by collectors for securing insects, and showed specimens of entomological nets and other receptacles for capturing and stowing them away. The advantages of using naphthaline in preference to camphor, as an agent for destroying living specimens, were pointed out. The "praying" insect from Madagascar was described. The name was given to the insect by the old-time monks of the South of Europe, on account of its attitude—standing upright on its hind legs with the two front legs, or feelers, extended, as if in an attitude of devotion. Unfortunately, the pious resemblance ended there, as the insect's position was not to "pray," but to "prey" on its smaller kind. Among the centipedes and other members of the *Anthropoda* world described were the familiar prawn, or Norway lobster, and collembola from Mitchelstown Cave. These latter insects were spoken of in detail, and their primitively wingless state explained. Plant-lice, or green-fly, the egg of the frog-hopper, the cuckoo's "spit," so frequently seen in summer on foliage, and which contained a small insect underneath the froth-like substance; water-bugs, notably the musical talent of the male bug, which possesses a whistle not unlike the sound produced by a small boy performing on a comb (the whistle is a kind of primitive love-song from the male to the female insect); the cochineal insect, and cantharides were among the insects referred to. The habits of many other insects were narrated, and some specimens of strange foreign ones and their nests were exhibited.

Mr. W. F. WELLS, jun., moved, and Mr. J. TYRIE TURNER seconded, a vote of thanks to the lecturer, which was cordially carried.

The PRESIDENT reminded members that on the second Monday in February Dr. McWalter would lecture on "Emulsions," and on the last Monday in the month Professor Tichborne purposed speaking on the liquefaction of gases.

THE LIVERPOOL CHEMISTS' ASSOCIATION.

THE annual meeting was held on January 27. The retiring President, Mr. A. C. Abraham, having introduced his successor, Mr. John Bain, the latter took the chair, and complimented Mr. Abraham on the work which he had done for the Society. Among miscellaneous communications the SECRETARY showed a sample of

MAIZE OIL,

which he said had now become an article of commerce. It had been mentioned on several occasions as possessing sufficient virtues to be employed in pharmacy, and the Secretary promised further information concerning it at an early date.

The PRESIDENT reported that he officially attended the dinner given to the Right Hon. the Lord Mayor of Manchester on the preceding evening, and said he thought these inter-

changes of courtesies led to more unity between chemists as a body.

After several votes of thanks had been passed, the ballot was taken for the new Council. Messrs. A. C. Abraham, H. O. Dutton, J. T. Hornblower, J. Smith, and J. J. Smith, retiring members, were re-elected, and J. R. Day and W. Pearson, new members, were elected.

THE ANNUAL REPORT

was next read by Mr. H. O. Dutton, Council Secretary. The special features of the past season were alluded to. It was stated that 187 price-lists had been sold. The deaths of Mr. Joseph Woodcock, honorary member, and of Mr. George Barber, Mr. Herbert, and Mr. J. F. Smith, members of the Association, were recorded. The financial report showed a balance in hand of 8*l.* 3*s.* During the session seven new members had joined the Association, and six had resigned or been struck off, leaving the numerical strength at present 118.

THE PRESIDENT'S ADDRESS

In the course of his opening address, the PRESIDENT reminded the members that they were now entering upon their forty-ninth session, and their Association, he claimed, had acquired during its long career a reputation as a provincial association second to none. Inevitably, since its foundation, the composition of the Association had changed, as had also the ideas, pursuits, and necessities of its members. In one respect, however, they of this session were at one with those who inaugurated the Association. They were still seeking for knowledge, and with good reason they pursued it more intensely than did even those who had gone before. The application of science to the production of medicaments entails a high state of culture on the part of those who desire to avail themselves of its enormous possibilities. Success in business depends to a great extent upon a capability of appropriating and utilising the scientific discoveries which have been unearthed, and to do this the education begun in apprenticeship must be continued by every available means. He considered it a good sign that local associations were increasing in numbers, and he hoped in usefulness. As well-organised institutions, with active committees and officers, they stand out all over the country as bulwarks against unfair interference with the rights of trade. They are pioneers in all important pharmaceutical movements, and are ever at hand for counsel or defence in time of need. The advantage and duty of supporting such associations was dwelt upon at some length, and the benefit of the Federation was also insisted upon. Mr. Bain concluded his remarks by referring to the loss the Association and pharmacy generally had sustained in the death of Mr. Michael Conroy. He truly adorned chemistry and pharmacy, and his now vacant place at their meetings would long remain painfully conspicuous. As a gentleman he was respected and beloved by all his numerous acquaintances and friends, and as a scientific chemist his name was of world-wide fame.

It was resolved, on the suggestion of several members, to make special reference to the death of Mr. Conroy at the next meeting, and that Mr. Edward Davies be asked to write an appreciation of Mr. Conroy.

THE SOLVENT ACTION OF PROOF SPIRIT AND ACETIC ACID ON COLCHICUM-SEEDS.

By R. C. Cowley and J. P. Catford.

Before Mr. Cowley was called upon to read this paper, Mr. A. C. ABRAHAM stated that the paper had been postponed from the last meeting, and should have been read before the paper by Messrs. Farr and Wright on a kindred subject was published. It traversed much of the ground covered by the latter communication, but it must be understood that the work has been contemporaneous.

The authors stated that this paper was a continuation of the work on colchicum corm undertaken by one of them last winter, and on which a paper was read before the Association last April. It was then the unanimous desire of the meeting that further investigations should be continued on the seed. Their later work had confirmed the view that acetic acid does not possess advantage over weak spirit as a solvent of the alkaloid of the drug.

They had made from a commercial specimen of powdered colchicum-seeds—(1) a tincture by the Pharmacopœial process; (2) an acetum by maceration and percolation with diluted acetic acid until 8 parts of the percolate were obtained from 1 part of the seeds. The spirituous preparation contained a considerable quantity of a fatty oil, some of which spontaneously separates in the cold weather in the form of oily globules and as solid white flakes. The acetic preparation contained no oily matter, but the diluted acid had the effect of dissolving out a large proportion of mucilaginous matter, thus necessitating a special preliminary treatment in each case.

To determine the alkaloidal strength of these preparations, precipitation by the usual alkaloid precipitants proved unsatisfactory, the results in all cases coming out too low. At first it was thought that tannin, which gave a very bulky precipitate, was going to be successful, but it was found that the precipitate consisted mainly of the colouring-matter of the drug, and when subsequently warmed with lead acetate, to decompose the tannate of the alkaloid, a resinous matter separated, apparently from the decomposition of the alkaloid, even though the operation was conducted at as low a temperature as possible on a water-bath. It was found that, owing to the tendency of colchicine to decompose, the simplest method of extracting it is the best one. The process followed was this:—First, it was found that removal of the oil by petroleum ether, as described by Messrs. Farr and Wright, was rather troublesome, owing to the formation of more or less emulsion, due to traces of mucilaginous matter. The authors, therefore, distilled from 100 c.c. of tincture about 50 c.c. of the spirit. They evaporated the remainder in a capsule on a water-bath to about 10 c.c. The oil is then floating on the surface. The liquid is acidulated with acetic acid, a little kaolin (previously washed with acid and water) is stirred in, and the liquid is filtered through moistened filtering-paper, the filter being afterwards washed with distilled water until no longer acid; the washings are concentrated and transferred with the first filtrate to a separator. Caustic soda is added in excess and 20 c.c. of chloroform. After well shaking, the chloroform layer is drawn off into a tared flask and distilled on a water-bath. The distillate can thus be repeatedly returned to the separator until all the alkaloid is exhausted; three washings are generally sufficient. The flask with alkaloid is then dried in an oven until of constant weight. As CHCl_3 forms a compound with colchicine, prolonged heating is necessary to drive off the last of it. The average yield of alkaloid from the tincture was .087 gramme from 100 c.c., equivalent to 75 per cent. of alkaloid in the seed.

To obtain a good result from the "acetum" it was necessary to remove the mucilaginous matter, which was done by evaporating 100 cc. on a water-bath to a syrupy consistence. The thick liquid was poured gradually into several times its bulk of strong alcohol, and set aside to completely precipitate the mucilage which is filtered out. The filtrate was received in a small flask fitted with a perforated cork, through which passes the stem of the funnel. The whole was placed on a water-bath. The vapour of the spirit passes through and around the filter, and is condensed on the bottom of a capsule or flask containing cold water fitting inside the mouth of the funnel, from which the condensed spirit drops back again through the filter into the flask. Complete exhaustion is thus ensured, as shown by the drops becoming colourless. The funnel is then removed, the spirit is distilled off, and the residue exhausted as already described. The average yield of 100 cc.'s acetum was .081 gramme alkaloid, corresponding to .728 in the seed.

Commercial samples of extracts of colchicum, acetic and ordinary, were also assayed. The chief difficulty consisted in removing the large proportion of mucilaginous matter, &c., which makes it impossible to exhaust by direct treatment. A process somewhat similar to that described above was adopted. The percentage of alkaloid in the acetic extract was 1.27, corresponding to 1.62 per cent. in the extract dried at 100°C ., and the percentage in the ordinary extract was 1.23 per cent., corresponding to 1.55 per cent. in the dried extract.

The alkaloid was obtained in the form of a pale yellow transparent varnish, with, in several instances, a distinct tendency to crystallise.

A peculiarity of the alkaloid from the acetic preparation

and also of that from the extracts, is that it is accompanied by something of a fluorescent character. The authors do not find that this has ever been noticed before.

Mr. J. SMITH said the old faith in acetic acid as a good solvent appeared to be exploded. He would like to know on what grounds it was first advocated.

Mr. P. MARSDEN thought the prolonged heating would tend to decompose the alkaloid.

Mr. HORNBLLOWER wanted to know the state of comminution of the seeds, or whether whole seeds were used. He had made wine from the entire seed with as good result, and they were certainly better to work with in that form.

Mr. COWLEY said the adoption of acetic acid might have been due to the fact that it was a good solvent of colchicine. His experiments had been conducted with bruised seed, which had been specially procured by the Secretary, and as to the relative value of the whole and powdered seeds Mr. Cripps—a most able pharmacist—had shown that there was no comparison between the proportion of alkaloid obtained from the bruised and the whole seed. The former was much more satisfactory in this respect.

LIVERPOOL PHARMACEUTICAL STUDENTS' SOCIETY.

At a meeting held on January 27, Mr. Pierson (President) in the chair, Mr. WOKES raised a question as to

THE DISPENSING OF SUCCINATE OF IRON.

The PRESIDENT said he had had occasion to dispense it at times, generally in the form of cachets, and also in a mixture suspended with mucilage, as it was insoluble in aqueous menstrua, although inclined to deliquesce. In finishing off the cachets they should be moistened with mucilage, to make them adhere, as water softens the succinate too much, and causes it to stain the cachets.

The SECRETARY (Mr. J. Harris Burnes) then read a paper on

THE EYE.

His remarks were well illustrated by diagrams and carefully-prepared photographs of dissections of the human eye, shown through the optical lantern. A large model of the eye was shown, and the lecturer dealt with the anatomical structure of the organ, theories of vision, faults in eyesight, and their correction by means of lenses. The author was complimented on his production, and on the command he had of his subject, the knowledge of which was gained, he said, whilst he was dispenser in an eye institution.

THE CHEMISTS' ASSISTANTS' ASSOCIATION.

ON January 27 a lecture was given to this Association by Mr. E. W. RICHARDSON on "How an Evening Paper is Produced." Mr. Richardson contributed last year a description of the production of an illustrated journal, and his more recent effort proved no less entertaining to his hearers. The functions of the various workers on an evening paper were sketched. The editor, as the captain, settles the politics, the distribution of news, and everything; he issues instructions to the leader-writers as to the subjects of their articles, and suggests the ideas they should express. The sub-editor arranges the news and appreciates its value, cutting it down or putting it in a prominent position. The items come from "penny-a-liners," from special reporters, or through the great news agencies. The tape-machine, the office-boy and the paste were also described, the printing-department was dealt with in detail, and the lecturer gave an interesting description of the modern composing-machines. The set types, he added, are passed to the foundry, where the stereotypes are cast from an impression in thick moist cartridge and blotting paper, and the cast stereotypes are fixed on the rotary machine, which prints 26,000 per hour. After revealing the mysteries of the fudge-box, the only portion of the paper printed from separate types, Mr. Richardson gave some details of the precision which characterised the work of a newspaper office, how every customer had to be considered, showing what benefit much-maligned competition works for the general good. Mr. Richardson was warmly thanked for his interesting lecture.

BRISTOL PHARMACEUTICAL ASSOCIATION.

THE annual meeting was held at University College on Wednesday, Mr. B. Allen (President) in the chair.

The Treasurer's report showed that, after a donation of 5*l.* 5*s.* to the Pharmaceutical Benevolent Fund, there was a small balance in hand. The Secretary's report dealt with the events of the year, and mentioned with regret that there was an insufficient number of students desirous of attending a materia medica class to justify the class being held this winter, but a good many pharmaceutical students are availing themselves of the lectures given at University and Technical Colleges. The reports were adopted, and Mr. B. Allen was thanked for his efficient discharge of the duties as President for three years, and as he desired to be relieved of the office Mr. G. W. Isaac was elected his successor.

The following were also elected for the ensuing year:—Treasurer and Vice-President, Mr. J. Stroud; Hon. Sec., Mr. B. Keen; Council, Messrs. B. Allen, T. Buxton, W. Berry, H. C. Boorne, J. Chandler, W. Pitchford, J. T. Plumley, G. T. Turner, E. Young, J. W. White. It was agreed to hold the annual dinner on March 16.

LEEDS CHEMISTS' ASSOCIATION.

THE adjourned meeting was held in the Café Monaco, Boar Lane, Leeds, on January 27, at 8.30 P.M. Mr. E. YEWDALE (President), in the chair, introduced the subject of the Early Closing Bill, and remarked that there was a class of people who put off to the last minute purchase of articles which might easily have been bought earlier in the day, and thought if some legislation similar to that of Sir John Lubbock's Bill was in force, it would support the efforts of the retail shopkeeper who wished to close earlier. In the discussion which followed Messrs. HARDMAN, J. H. FOURNESS, NORFOLK, and BOWMAN expressed themselves favourable to the Bill, and it was agreed that the Committee should support the Bill in due time.

A discussion was then introduced on the Metric Weights and Measures Bill, and it was agreed that the Committee ask the members of Parliament for the city to support the Bill.

Mr. J. H. FOURNESS thought Leeds was much behind many other cities and towns in not having a yearly convivial meeting of the trade, and suggested an annual ball. The PRESIDENT said he could not entertain the suggestion unless it was better supported, but ultimately a committee was formed to consider the proposal.

THE NEWPORT AND MONMOUTHSHIRE CHEMISTS' ASSOCIATION.

THE first annual dinner of this Association was held at the Westgate Hotel, Newport, on January 27, the Mayor (Alderman Bear) presiding. Amongst those present were Dr. Garrod Thomas, Dr. Basset, Dr. Howard Jones, Dr. Gratte, Dr. Hamilton, Messrs. G. R. Thompson (the County Analyst), Benson Harris (Hon. Secretary and Treasurer), R. R. Groome, H. C. Lewis, F. A. Young, W. C. Gosse, G. C. Griffiths, J. Lloyd Jones, A. Gratte, and C. Paine.

Dr. BASSET proposed the toast of "The Newport and Monmouthshire Chemists' Association," and said it was the first time in the history of Newport such a toast had been proposed. He was glad to find they intended arranging for courses of lectures on chemistry, pharmacy, &c. These would be a great help to the students. The Medical Society would be very pleased to work in harmony with their Association, for the chemist and the doctor had a good deal to do with one another.

Mr. PAINE (Vice-President), in responding, referred to the practice now very common of doctors dispensing for themselves. He would be glad if the doctors could see their way clear to leave to them (the chemists) what legitimately belonged to them.

Mr. SMITH proposed the toast of "The Town and Trade of Newport," to which the CHAIRMAN responded. As Mayor he felt great interest in the town. Not the least important class of the community were the chemists, but, notwithstanding their long hours and hard work, during the thirty-eight years he had resided at Newport he had only known one chemist retire.

Dr. GARROD THOMAS said he was anxious to testify to the

high opinion he had formed of the chemists of Newport. He was confident they would reap the benefit of thus combining together.

Mr. COLLIS then proposed the toast of the "Medical Profession at Newport." The interests of the chemist intertwined with those of the doctor, and he hoped the doctors would hand over all dispensing to the pharmacists.

Dr. GRATTE pointed out that doctors had very much the same difficulties to contend with as the chemist. He thought that, though it would not be practicable, for the present at least, to comply with the wishes of the chemists with regard to dispensing, the medical profession would only be too glad to see this change brought about. Years ago the medical man had his fees and wrote prescriptions. Now, however, owing to competition, he was expected to do the work and find the medicines at a low remuneration, and was, in consequence, bound to do his own dispensing.

Mr. LLOYD JONES then proposed the toast of "The Visitors," and said he was glad to see their Analyst present.

Mr. THOMPSON, in responding, said, as regarded the visitors, he only hoped they would continue to invite them to their annual meetings.

The toast of "The Mayor" was then drunk, and a pleasant and successful evening concluded by a short musical programme.

EDINBURGH CHEMISTS', ASSISTANTS', AND APPRENTICES' ASSOCIATION.

AT the meeting held on January 23, Mr. G. Sinclair (President) in the chair, a paper was read on

THE PROFESSION OF PHARMACY REVIEWED FROM THE ASPECT OF AN EMPLOYER.

By W. Makepeace Lock.

The author reminded his audience that he had already read papers on the profession of pharmacy from an apprentice's point of view and from an assistant's point of view; he also had other points of view in store. He did not include among "professional" employers those chemists and druggists who were on the register by reason of having been in business before the Act. As for that employer who is a chemist and druggist, who possesses a diploma, and whose name appears on the "Register" as having annexed the Minor certificate of the Pharmaceutical Society, although he may perchance possess as much knowledge as, and mayhap, more brains than some pharmaceutical chemists, yet he shows no evidence in support of this idea; and the author maintained that until he procured for himself the Major certificate he hardly merited the position of a professional man. The pharmaceutical chemist seems more hopeful. He is at the top of the tree of pharmacy; his diploma should, but does not, make pharmacy a profession. For, even excluding the fact that he is not required to undergo a University training, his business, in its present constitution, effectually debars him from being ranked as a professional gentleman. His establishment would have to sustain a tremendous upheaval. He would find it necessary (and this, of course, applies equally well to simple chemists and druggists) to part with his "Smith's mixtures," his prime "Havanas," and his "Three Bells" cigarettes, reserving only the official "Folia Tabaci." His perfumery-goods, his shaving and other brushes, his patent and proprietary articles, his unmedicated lozenges, his varied assortment of ordinary soaps, his grease-paints, his large collection of bath-sponges, and a host of other articles too numerous to mention, all should be handed over to the proper vendors. His aerated-water trade, too, might with profit to himself be confined exclusively to syphons, always provided that the contained fluid be a medicated one.

But in order that such a state of affairs could be brought about, it would first be necessary for all chemists to enter into a grand combination, and that they should all be of one mind on the point at issue. To accomplish this it was suggested that the Pharmaceutical Society should compel all chemists and druggists and pharmaceutical chemists in Great Britain to subscribe to their Association, and help in this way to fill their coffers; this point gained, a special law would enact that all such articles be expunged from the trade, for the purpose of conferring upon it much undoubted

good; the chemist and druggist would then take his stand permanently as a professional man, a position which he, by reason of his scientific attainments, ought certainly to fill.

The author recognised that he could not build up that exquisite model. Pharmacy is not a profession. The "consistent central principle" of business (said the writer) implies that an article is purchased for as much as possible less than its value, and sold for as much as possible more.

Numberless tricks and underhand dealings are brought into requisition in the art of selling; and he who best can juggle words, and show tricks with them, making them appear what they were not meant for, and serving two senses at once, is the most successful business man. He is a fencer of language, ringing the changes on words, commonly slurring every fourth or fifth word, whenever he has occasion to mention any qualities respecting the article of which he is wildly attempting to dispose. A man can hardly afford to do more than pretend to take the orthodox view of morals in business; and, proceeding to the recognised professions, we find that they also are pervaded by the same spirit and worked on the same useful principle.

But in pharmacy, as in everything else, a watchful eye must be kept on one's neighbours, for even here the weakest go to the wall; and the conscienceless business man who holds fast by the great central principle must of necessity see that it is his neighbour who takes that position, and not himself. He takes every opportunity to belittle his "friend" who has an establishment at the next corner or across the street, as the case may be, and hopes that he may be swallowed up in the wild rush for a competency. The higher up in the scale his so-called "friend" may be, the keener the sport to hunt him down; and this is just what he tries to do.

Take a glance at the average successful druggist. As an apprentice he had his little trials, but these are past; and an assistant he was kept continually at the wheel, and ground down with excessive work; that too is past. He has now, from being a raw, uncultivated, ill-clad, lazy boy, blossomed out into the mature, polished, busy man of the world. For, though no profession, pharmacy is anything but a failure; pursued intelligently it has vast capabilities and an infinitude of resource not to be found in any other occupation. While it undoubtedly suffices to provide one's daily bread, there are many cases in which it has led on to fortune and fame, and that, too, in a comparatively short time. There is really very little connection between scientific chemistry and the chemistry of the chemist and druggist. His chemistry simply consists in the art of preparing, preserving, and mixing medicines; and this department of chemistry is termed "pharmacy." Let the pharmacist, then, deserve the title "chemist" when he has it; let him become a scientific chemist, for it will tend to raise him above the mere vendor of medicines; it will guide him in his wholesale purchases, and will enable him to test the purity of all the articles about him and to prepare many compounds which he must otherwise buy. Let him summarily eject all articles which savour of other vocations. This he can do with ease, since the profits on most of them are "nil"; and, finally, let him secure the Major qualification.

Messrs. CURRIE, HILL, KIDD, MCBAIN, MCDIARMID, MACKENZIE, ROWLAND, and SINCLAIR discussed the paper and generally agreed with the author, though it was pointed out that so long as doctors did their own dispensing there was a serious obstacle to the pharmacist attaining his true position as a professional man. The necessity of earning a living compelled him to add to his stock many things that it would add to his dignity to avoid. The sale of quack medicines was particularly condemned. Another tendency that militated against his professional standing was the extent to which many pharmacists relied entirely on the wholesale manufacturer for ordinary galenical preparations which could easily and more economically be made in any pharmacy.

A vote of thanks was awarded to the author.

GLASGOW AND WEST OF SCOTLAND PHARMACEUTICAL ASSOCIATION.

A MEETING was held at 94 West Regent Street on January 25, Mr. W. L. Currie in the chair, when a lecture on

PHARMACOGRAPHY

was delivered by Mr. J. LOTHIAN. The lecturer showed how essential a knowledge of the structure of drugs is in the practice of pharmacy, and how, owing to the increasing use of powdered drugs, a practical acquaintance with the microscope is more necessary than ever. The preparation of drugs for section-work was described, and sixty lantern-slides were shown by the optical lantern as illustrating the histology and pharmacognosy of the principal starches, spores, roots, &c., used in medicine, including some specimens of adulterated powdered drugs.

BRADFORD AND DISTRICT CHEMISTS' ASSOCIATION.

OWING to indisposition, Mr. T. Pattinson was unable to give his promised lecture on February 1. In place of it the Council arranged a musical evening. Before the proceedings commenced, the Secretary was requested to convey the sympathy of the Association to Mr. Pattinson, who is suffering from influenza. The programme—a varied one—was contributed to by Mesdames Mitchell and Moulson, and Messrs. Mitchell, Moulson, Severs, Henson, H. Taylor, J. Taylor, and C. McKee. An enjoyable evening terminated with a vote of thanks to the ladies and visitors.

BRIGHTON JUNIOR ASSOCIATION OF PHARMACY.

ON January 26, at a meeting of this Association, a debate was held on "Should the Contagious Diseases Act be Brought into Force in England?" A good discussion followed.

SOCIETY OF ARTS.

ON Wednesday, February 2, Mr. JULES FUERST gave a lecture before this Society on "Lumiere's Cinematograph." The lecturer sketched the origin of chrono-photography, or the photography of movement, and gave a few brief historical notes on the subject. The principle of the apparatus, due to persistence of vision, was explained, and the method of using the machine for both taking the photographs and projecting images gone into. The developer recommended was one made as follows:—

Amidol	...	...	...	2 oz.
Sulphite of soda	...	...	...	10 oz.
Water	...	...	...	20 pints

Development can be done in ordinary galvanised-iron pails, the film being passed from one pail to another till sufficiently dense. After fixing the film is "glycerinated," to prevent contraction, in a solution made of—

Absolute alcohol	...	...	5 pints
Glycerine	...	...	10 oz.
Water	...	...	15 pints

The lecturer then gave a practical exhibition of what the apparatus would do in the way of projection, and pointed out that this apparatus has the condenser, in the form of a glass globe, filled with water slightly acidulated, this form of condenser being found to absorb the heat-rays, thus preventing the accident of firing the film. A curious effect was given by passing some of the films through the apparatus backwards, divers in one case appearing to jump from the water to the spring-board, and in another case a regiment of cavalry seemed to be making their horses jump backwards.

SOCIETY OF CHEMICAL INDUSTRY.

At a meeting of the Liverpool section of this Society on January 26, Dr. J. T. CONROY read a paper on experiments he had recently been conducting in connection with the manufacture of cyanides. He described also an investigation on the solubilities of the ferro-cyanides of sodium and potassium in pure water, and also in solution of alkali salts. In addition to these papers, shorter communications were read by Dr. C. A. KOHN and Dr. LEATHER.

NOTTINGHAM SECTION.

AT the meeting held on Wednesday, January 26, at the Queen's Hotel, Burton-on-Trent, Mr. James O'Sullivan in the chair, Mr. J. GOLDING read a paper entitled

NOTES FROM SOME OF THE TECHNICAL
LABORATORIES OF COPENHAGEN.

It was illustrated with limelight views, the majority of which had been taken by himself from actual objects on the spot. Jörgensen's Laboratory is an institution fully equipped for bacteriological research, and the precautions taken for sterilising the inoculating-chambers, a solution of mercuric chloride being employed for the purpose, were fully described. The professors and demonstrators at this and similar schools are able to lecture in at least four languages—viz., German, French, English, and Danish. Some of them can also speak Russian—a circumstance that explains the cosmopolitan character of the students who are attracted to Copenhagen. Views of the Carlsber brewery were shown, and the interior of the laboratory in which Kjeldahl works, with the Professor himself forming part of the picture. This gave occasion for some reference to the well-known process for the estimation of nitrogen that bears his name. Mr. Golding stated that in his own practice he found sulphate of potash preferable to permanganate, which Kjeldahl still employs. Mr. Golding also finds that the use of a copper or tin vessel to generate steam, which is conducted into the flask in which the nitrogen operation is performed, is better than to directly heat over the flame the substance to be decomposed, even though this be done in a copper flask. The lecturer referred to the practice of these Danish laboratories of issuing publications of the work done in them, jealously guarding the possibility of anything appearing in other journals before its publication in their own. This is a practice also followed in America, where the number of local *Bulletins* is legion, with the result that in order to get full particulars of the work done by others on some special subject one has to search through an immense mass of publications some of which are not always obtainable.

The Agricultural Research Station, at which Professor Storch is resident, afforded much interesting matter. Mr. Golding, who at a recent meeting had described a reflux condenser used at this station (*THE CHEMIST AND DRUGGIST*, vol. li., p. 873) now showed the actual apparatus, having only that day received it. He explained that the cake or other substance to be extracted is put into a glass cylinder open at the top and drawn out at the lower end so that it can be easily closed with a plug of asbestos or glass wool. This cylinder is slipped into the tube carrying the condenser, the whole being so arranged that a space is left between the two tubes for the ether-vapour to pass freely on its way to the condenser at the top. (See *Jl. Soc. Chem. Ind.*, vol. xvi., p. 979, fig. 3.)

For the absorption of milk, powdered kaolin is preferred to paper by the Danish chemist as being absolutely free from any trace of fat. A very convenient basic standard solution for titration-purposes in general use in these laboratories is lime-water which has been found to be $\frac{1}{20}$ normal in strength. It varies within very small limits, which have been ascertained, according to the temperature. It has the great advantage that by always keeping an excess of lime in the store vessel the supernatant clear liquid is always of the right strength, and, further, that what CO_2 the liquid absorbs is precipitated, the corresponding amount of lime to that withdrawn going into solution.

The beneficial effect of scientific control on farming-operations was well illustrated by the description of the work carried on at the Butter Exhibition. Tubs of butter are taken haphazard from the dairies by proper inspectors and sent to the exhibition, where they are first tested for water by being allowed to drain a certain length of time. When first this exhibition was instituted considerable quantities of water were thus obtained, but now they hardly get any. Mr. Golding concluded his interesting remarks by an account of the Veterinary and Agricultural School at which the bacillus that causes abortion in cattle is said to have been discovered.

In the course of the discussion Professor STANLEY KIPPING said that in the Kjeldahl process a few small pieces of paraffin put on the surface of the liquid prevented frothing. He thought the notes they had listened to were very interesting, and the only regret he had was that in Copenhagen they should be so advanced whilst here we have no such institutions in the midst of our industries. He hoped that the excellent example set us by the Danes would be emulated in the Burton district.

Pharmaceutical Society of Great
Britain.

COUNCIL-MEETING.

HILARITY was the prevailing tone at the meeting on Wednesday, perhaps on account of the scarcity of serious business, which may also have accounted for the late arrival of three or four of the councillors, out of the nineteen members who mustered eventually. The production of the ballot-bag caused a little excitement as to who would be the seven members who would retire in May. As a result of the ballot, that fate befell Messrs. Allen, Atkins, Corder, Grose, Martindale, Savory, and Warren.

The Registrar's report showed a total of 15,215 chemists on the register on December 31, 1897, of which number 2,251 are pharmaceutical chemists. The increase in the register is this year only 49, against 88 the previous year, the increase taking place among chemists and druggists, pharmaceutical chemists being two fewer than last year. As regards the strength of the Society the report shows a total decrease of 23, members and associates not in business being the diminishing classes. A report from the Board of Examiners for Scotland occupied twenty minutes reading, but was of much interest, as showing what subjects candidates mostly fail in and suggesting remedies, but the one panacea appeared to be a compulsory curriculum. The report gave rise to a good-humoured defence of Scotland by Mr. Johnston, who thought that if some process of differentiation as to which side of the border candidates came from was adopted, Scotland would not come out so black as regards failure as it appeared to. Mr. Bateson enunciated the doctrine that young men who make good use of their opportunities during apprenticeship fare better at examinations than even those who attend a school of pharmacy; but not all the other members were of like mind.

MEMBERS PRESENT

were Mr. Walter Hills (President), Mr. Newsholme (Vice-President), Messrs. Allen, Atkins, Bateson, Bottle, Carteighe, Corder, Cross, Grose, Hampson, Harrison, Johnston, Martindale, Park, Southall, Storrar, Symes, and Warren. The minutes of the previous meeting having been read and signed as correct, the PRESIDENT said that since the last meeting they had

LOST BY DEATH

Mr. Lea, of Worcester, who was a life-member and a pharmaceutical chemist, and who some years ago showed his practical sympathy with the objects of the Benevolent Fund by giving a donation of 50*l*. He died (the President continued) at a comparatively early age. The President also mentioned the death of Mr. Michael Conroy, who, though not connected with the Society, was well known to its members, and especially to those who attend the British Pharmaceutical Conference, where his papers always attracted attention by their excellent work. "Pharmacy has lost an excellent and distinguished man" were the President's words. Then came

THE BALLOT,

and while examining the ivory balls to see that they were all correct, the PRESIDENT parenthetically remarked that he hoped the days of this antiquated operation were numbered. After a good shaking the bag containing the balls was handed to the Vice-President, who drew out the numbers representing the following members in order thus:—Messrs. Corder, Grose, Martindale, Warren, Atkins, Savory, and Allen. These seven, therefore, retire in May. The retiring members, in addition to the above, are Messrs. Bateson, Cross, Hills, Johnston, Newsholme, Storrar, and Symes.

ELECTIONS

of members, associates and students, and restorations to the Society then took place, after which the SECRETARY rattled through the report of the

FINANCE COMMITTEE,

which showed the balances to be as follows:—

	£	s.	d.
General Fund Account	354	2	6
Benevolent Fund	404	12	0
Donation Account	334	8	5
Orphan Fund	165	8	9

The balance on the General Fund account on December 31 was 736*l.* 3*s.* 4*d.*, and during the month 1,736*l.* 5*s.* 5*d.* was received, and payments amounting to 2,118*l.* 6*s.* 3*d.* were paid, leaving a balance of 354*l.* 2*s.* 6*d.* Further sums of 1,561*l.* were now ordered for payment.

THE REGISTRAR'S REPORT

was taken as read. It dealt with the strength of the Society, the examinations, and the registers for 1897. Taken in above order the report was as follows:—

STRENGTH OF THE SOCIETY.

	1896	1897
Ph. C. members	1,584	1,552
C. & D. members	575	556
C. & D. associates in business ...	1,682	1,721
C. & D. associates not in business ...	984	946
Students	846	873
	5,671	5,548

EXAMINATIONS.

First.

Candidates examined, 1,414; passed, 678; failed, 736 (52.05 per cent.).

Minor, London.

Candidates examined, 863; passed, 270; failed, 593 (68.71 per cent.).

Minor, Edinburgh.

Candidates examined, 578; passed, 190; failed, 388 (67.12 per cent.).

Major, London.

Candidates examined, 96; passed, 51; failed, 45 (46.87 per cent.).

Major, Edinburgh.

Candidates examined, 10; passed, 1; failed, 9 (90 per cent.).

THE REGISTERS.

Additions during the year:—

Number of persons who have passed the—

Minor 460

Major 52*

Number of persons restored to the Register

on payment of a fine 19

479

Erasures during the year:—

Deaths 285

Erased at the request of registered persons

themselves 8

Erased by the Registrar in pursuance of the

provision set forth in Section 10 of the

Pharmacy Act, 1868, after sending two

registered letters, to which no answer has

been received 137

Increase of numbers on the Register... .. 49

479

Number of pharmaceutical chemists on the

Register, December 31, 1897 2,251

Number of chemists and druggists 12,964

15,215

* These, having already been included in the number who passed the Minor, do not increase the numbers on the Register.

BENEVOLENT FUND.

The committee recommended grants of 20*l.*, 12*l.*, 10*l.*, and 6*l.*, and reported the death of Ann Parsons, who had been an annuitant since 1877.

LIBRARY COMMITTEE.

The report of this Committee showed that during 1897 the attendance in the library was 3,843 during the day and 1,122 in the evening, and that 2,219 books had been borrowed. The letter of the Decimal Association had received attention, and the President was delegated to attend the meeting of the Association. The Institute of Chemistry had written asking to have a copy of the *Pharmaceutical Journal*, and their request was granted.

LETTERS.

The Hon. Secretary of the Midland Chemists' Assistants' Association wrote forwarding a resolution, expressing approval with the new Pharmacy Bill, and the Hon. Secretary of the Royal Botanic Society wrote extending the time for students to 3 o'clock instead of 1 as formerly.

Dr. SYMES thought this was a great advantage to students, and Mr. MARTINDALE explained that they had asked for the concession on account of the short time left for students to study in the garden when they attend morning lectures at the school. The extension, however, did not apply to Saturdays, as on that day the public are admitted on payment of 1*s.*, and it took the gardeners all their time to look after the public, let alone students.

Dr. SYMES thought that the thanks of the Society should be forwarded to the Royal Botanic Society if it had not already been done.

The Coroner of Southampton sent a letter conveying the verdict of a jury at an inquisition held on January 25 in which carbolic acid was the cause of death, to which a rider was attached to the effect that more caution was advisable in the sale of carbolic acid, and that special bottles should be used for it.

The PRESIDENT then read a report from the

BOARD OF EXAMINERS FOR SCOTLAND,

which, he said, had been sent in reply to a request that some such report should be sent periodically. It dealt with the causes of failures at examinations, and added some valuable suggestions which the President hoped would be of service to teachers and examinees alike. He recommended the publication of it for this purpose. The following is an abstract of the report, and gives the chief features and suggestions:—

During the year 577 candidates were examined, of whom 190, =33 per cent., passed, and 387, =67 per cent., failed:—64 failed in both practical chemistry and practical pharmacy; 109 failed in practical chemistry only; 73 failed in practical pharmacy only; 64 failed in botany; 33 failed in oral chemistry; 6 failed in materia medica; 5 failed in prescription-reading; 7 failed in oral pharmacy; 26 failed to obtain the pass aggregate of marks. All candidates had gone through the practical part of the examination, but all did not go through the oral.

Of the total number of students who failed, 16.53 per cent. failed in both practical subjects, 28.17 per cent. failed in practical chemistry only, and 18.87 per cent. failed in practical pharmacy only. The two practical subjects therefore account for 63.5 per cent. of the total failures.

Practical Chemistry.—Of the 577 candidates who presented themselves 30 per cent. failed in this subject, because they are insufficiently prepared, and frequently they show that their training has been from the outset altogether faulty in conception.

Unsystematic and superficial acquaintance with a large number of special tests and special reagents is frequently shown by candidates. A really sound knowledge of the general behaviour and use of the common reagents, and of the simplest analytical methods is too frequently altogether wanting. It is a matter of common occurrence to see a candidate almost exhausting the resources of the laboratory in the unthinking application of numerous special reagents. The cure for this state of matters can only come as the result of better and more systematic teaching. During the last three years there has not been wanting evidence that such teaching is on the increase, but the progress is slow, and it may be doubted if it can ever be sufficient to meet the wants of the case in the absence of a proper curriculum.

Much improvement might, however, result if students and their teachers realised that in the purely scientific subjects the examinations are principally directed towards ascertaining whether the

candidates have or have not a sound practical but elementary knowledge, and that in their qualitative work they will be expected to give clear and systematic proofs of simple problems, rather than guesses, more or less happy, based upon a number of special tests unsystematically applied. Without entering into details the following may be mentioned as frequently occurring causes of failure in qualitative analysis:—

(a) Inability to make a rapid but reasoned and careful Preliminary examination, chiefly by means of dry way tests.

(b) The practice of delaying the writing out of reports until after a conclusion has been come to instead of noting down each observation as soon as it is made.

(c) The neglect of a final summing-up of all the evidence which has been accumulated so as to make sure that it all points one way, and that none of it is directly contrary to the conclusion which has been arrived at.

These defects can only be remedied by constant practice throughout the course of training for the examination.

Practical Pharmacy and Dispensing.—Twenty-four per cent. of the 577 candidates failed in this subject, owing, the examiners believe, to want of experience. Though there has been a manifest improvement generally in the work done, notably in the making of the galenical preparations of the Pharmacopœia, there is still too frequently evident a want of familiarity with the utensils and methods of working required to turn out well-made products, and the candidates give the impression that they are making their first attempt to compound the preparation in the examination-room. In weighing and measuring there is often much carelessness and want of cleanliness, the products being contaminated by the use of mortars or spatulas not properly cleaned after some previous operation. Examples quoted are: A candidate attempts to prepare 2 oz. of iodide of sulphur ointment in a glass mortar not more than 2½ inches in diameter. Another candidate puts the ingredients for an infusion in an earthenware infusion-pot and sets it on a naked Bunsen flame. One candidate makes a pill-mass by kneading the ingredients between his fingers and thumbs on the pill-machine, and then divides the mass by weighing each pill separately. A candidate who may otherwise do good work, puts what should be an 8-oz. mixture into a 6-oz. bottle, or dispenses six "such powders" instead of dividing the quantity specified into six powders. There is also an indiscriminate use of sugar of milk in dividing an active drug. One candidate, for instance, uses it to obtain the fraction of a grain of perchloride of mercury for an eye-wash, and others do the same in making small quantities of solutions of arsenic or of strychnine. The examiners believe that this condition of things could be greatly remedied were employers to devote greater attention to the systematic practical training of apprentices during their period of pupillage.

Oral Chemistry and Physics.—Of the 278 candidates who were examined in oral chemistry and physics, 245 (88·73 per cent.) passed. At the oral examination in chemistry and physics candidates commonly show that they have endeavoured to cover the whole ground laid down in the syllabus without taking care, in the first instance, to master elementary principles. As specially significant of defective training it is mentioned that many candidates admit that they have neither performed themselves, nor even seen performed, the simplest and most important experiments, for instance, the heating of sulphur.

Botany.—Of the 295 candidates who were examined in botany, 231 (78·3 per cent.) passed. The chief impression the Examiner in this subject has received during the past year is that far too large a proportion of the candidates come up for examination inadequately prepared and wanting a practical knowledge of elementary fundamental facts. To the practical recognition of the organs of plants and an acquaintance with the functions severally performed by these the examiner has attached primary importance in conformity with the terms of the syllabus. In respect of the former the candidates have frequently shown startling ignorance, whilst the knowledge of the latter displayed by them has been in a great many instances not merely deficient but quite wrong and out of date. The candidates seem to absorb information from text-books without digesting it, and without reference to the plants themselves. Of like character as an index is the fact that candidates may know a name for a phenomenon—the more likely if it be some long, high-sounding one—but can neither recognise an instance of it when shown to them, nor give any explanation of its essentials. Acquaintance with the name in this instance does duty for knowledge of the thing. The conditions under which most of the candidates have to study the subjects of examination are anything but favourable; yet still, even amongst those who fail, many appear to have genuinely worked according to their lights, for the examination. The Board is satisfied that to defective teaching is to be traced the greater part of the failures that occur. Candidates come up crammed. They have not studied.

Materia Medica.—In the recognition of drugs and their adulteration candidates are fairly well prepared. Occasionally one is met with who persists in telling the Examiner that Spanish cantharides is Chinese blistering-fly, and *vice versa*, even although he is shown the specimens side by side. A mistake like this can

only be attributed to sheer ignorance, and as an indication of the mental habit of the candidate it is sufficiently serious. The purely memory work is fairly well done, and the botanical sources of drugs, the natural orders, and habitats are usually given with readiness and accuracy. The active principles of the more important drugs are also familiar by name to most of the candidates, but relatively few carry their reading sufficiently far to enable them to form more than a hazy idea as to how these principles are extracted. The moment the Examiner leaves the beaten track the average candidate flounders hopelessly. Facts familiarly known to every educated man are apparently unknown to the candidates. For example: Sumatra is located in South America, North Africa, India and "China way"; Senegal, in East Africa and North America; Jamaica, in the East Indies; and so on. Candidates excuse themselves by saying there is no mention of geography in the syllabus. To sum up, the general impression is that purely memory work is got up with care by the average candidate, but beyond that there is really little attempted.

Prescriptions.—There are no special observations to be made on this subject. Though candidates generally can read prescriptions fairly well, there is frequently an astonishing ignorance of Latin grammar and terminology considering that they have already passed the First or Preliminary examination in that subject. Failure to detect excessive doses in prescriptions is also very frequent.

Oral Pharmacy.—There are comparatively few failures in this subject, probably because those who are weak have already been sifted out on the practical day. The failures are due to an insufficient knowledge of the Pharmacopœia. Many seem not to know that book practically, but cram up a few strengths of active ingredients, which in the excitement of the moment they often forget. As examples, it is mentioned that many say ipecacuanha wine is made by dissolving an extract of the root in sherry wine, but they have no idea how the extract is made, and many have no definite idea of the strength of the most active preparations which they are called upon to dispense every day.

In conclusion, the Board respectfully direct the attention of the Council to the evidence of the great lack of a definite, systematic, and thoroughly practical course of training pursued for a sufficient period under competent teachers as a dominant note of their report. The Board entirely concur in the oft-repeated and now generally recognised necessity for an adequate curriculum. They gladly recognise evidences of improvement, but are unanimously of opinion that the only sufficient security for the adoption of such a curriculum is its compulsory enforcement.

A discussion followed the reading of this report, in which the PRESIDENT said it would have the effect of helping on an enforced curriculum, as it showed that the examination involved not a question of the number of facts brought together, but rather an intelligent knowledge of principles. (Hear, hear.)

Dr. SYMES spoke of it as an elaborate and excellent report, which candidates ought to peruse, and said that when the new by-laws came in force the results were bound to be better, as they would have better material to work on. (Hear, hear.)

Mr. CARTEIGHE gave, as an instance of how defective chemical training was now, that, of the numberless candidates who had passed through his hands, he was almost afraid to say how many thousands had never seen phosphorus burnt in oxygen. He had observed this, even in recent years, although this experiment was shown repeatedly in every village in the land. It was most important that teachers should teach the principles by experiment, which alone can make it intelligible. Personally, he had the greatest pity for men prepared by the usual methods.

Mr. BATESON said students did not avail themselves of the advantages and privileges which were obtainable at home. Young men who made good use of their opportunities by attending local classes during their apprenticeship fared far better at the examination than did even those who go to schools of pharmacy. He knew of no single instance of a young man who had conscientiously studied during his apprenticeship failing at examination.

The PRESIDENT said there was a duty on the master as well as the pupil. The master should see that pupils were encouraged and given facilities for attending classes, and even where there were no classes much could be done to encourage habits of study and close observation.

Mr. BATESON thought students relied too much on their means to go to a school at the proper time, which caused them to lose valuable time during apprenticeship. As for geography he could see no excuse, and always himself used Bradshaw's Guide as a text-book.

Mr. ALLEN concurred with the President in thinking the report a valuable document, and thought that Mr. Bateson did not mean to discount schools of pharmacy. Still he (Mr. Allen) thought the man who had studied during his apprenticeship had great advantages over the man who had money to go to a school. There was to his mind no question that study during apprenticeship was real study.

Mr. NEWSHOLME said he had noticed that at the last examination the greater part of those who passed had done so at their first attempt. He asked one young man if he had tried before, and was told that he was only just 21 so could not have done so, and he found this young man had during his apprenticeship studied at South Kensington classes, and worked during the whole of his apprenticeship, and he passed well.

Mr. ATKINS said there never was a time when there were so many opportunities of studying. (Hear, hear.) As a County Councillor and a member of the Technical Education Committee, he saw a good deal of it. He called to mind a village twelve miles from Salisbury which was a centre of educational light, where chemistry, botany, physics, and allied sciences were taught and the best instruction could be obtained. As one getting on in life, he called on young men to take advantage of such splendid opportunities of knowledge. The great difficulty educationalists had to contend with was the rareness of thinking; ready-made thinking did not lay a good foundation for examinations.

Mr. MARTINDALE said Mr. Atkins had pointed out the advantages of classes, but there were two other helps more valuable still—viz., self-help and fellow-help. By fellow-help he meant the help a senior could give to a junior, which was help much to be valued. The student who left his studying till after his apprenticeship was like a fowl fed with a spoon—such cramming could not be satisfactory.

Mr. JOHNSTON said he would like to ask how many of the students mentioned in the report belonged to Scotland and how many came from the other side of the border? (Laughter.) He could, it was true, only speak of the East of Scotland. He was afraid there were catch-questions sometimes asked on things they were never likely to even see in the course of their life. What was wanted was more centres of education for Minor and Major men, and he thought some course should be adopted to ensure compulsory curriculum, as with men better prepared there would be less difficulty in passing examinations. He (Mr. Johnston) hoped that the next report would show from which side of the border the candidates came—(laughter)—as he considered that a man who would take a 2-oz. mortar to make 2 oz. of ointment is a fool—at least, he could not be a Scotchman. (Laughter.) It was absurd to take a 4-oz. bottle for an 8-oz. mixture; the man who did it must have come from England. No man on his side of the border would do such a thing. (Laughter.)

Mr. HAMPSON said they seemed to have raised an international question, and was willing to grant that there were no Scotch fools.

The PRESIDENT rose to protest as an Englishman. (Laughter.) They must take the figures as they are, and he was bound to think that the majority of the candidates were Scotchmen. (Hear, hear.) In regard to centres of education he pointed out that he knew of cases where facilities existed, and were not used to any great extent. When at Manchester, which he had visited to attend a banquet last week, he went over Owens College and found there every facility—splendid rooms and spaces, which when he thought of their own schools he envied, but with all this opportunity there were but few students. There must be in Manchester many young men who ought to use the facilities at this college. The cry was "Come in," but students do not come in to any great extent.

Mr. JOHNSTON was going to say something about a school they had in Scotland, but sat down again amidst general laughter.

HOLIDAYS.

Dr. SYMES was reminded of the holidays by the fine weather, and hoped that in arranging their holidays the councillors would remember the British Pharmaceutical Conference at Belfast on August 9, and keep this date free.

"FIRST" EXAMINATION.

WE have received from the Registrar of the Pharmaceu-

tical Society of Great Britain the following list of candidates who were successful at the First examination, held on January 11:—

Ackerley, A., Birkenhead
Aikman, John, Leith
Appleyard, Herbert, Leith
Backler, C. L. E., Peterborough
Barrett, Walter Ernest, Hkley
Barrie, Walter, Tweedmouth
Bate, Joseph William, Walsall
Baxter, Henry C., Dunfermline
Bayley, Charles W., Brighton
Beachler, Ralph E. O., Sheffield
Beale, Percy A., Northampton
Bell, Edgar Thomas, Cardiff
Bell, Ivie Hair, Glasgow
Bell, James Thomson, Dnmfries
Bird, Albert Edward, Rugby
Blechynden, A., Newcastle-on-Tyne
Blyth, Charlotte P. P., Edinburgh
Booth, William, London
Borrowman, Agnes T., Melrose
Bott, Graham E., Lewisham
Brice, Albert Victor, Bristol
Brims, Donald, Liverpool
Brooke, Frank, Doncaster
Brown, G. S., Broughty Ferry
Bryant, J., St. Leonards-on-Sea
Buchanan, Lizzie, Kirriemuir
Bullock, James, Leicester
Campbell, Robert, Lancaster
Cassidy, John P., Gateshead
Christie, Benjamin, Aberdeen
Christie, J. D., Old Meldrum
Clark, Fredk. H., Cockermouth
Clark, James, Glasgow
Clarkson, J. M., Edinburgh
Cluett, Charles P., Chester
Cockrill, Thomas W., Hull
Cooper, Astley, Leeds
Cooper, George R., Southport
Corson, George S., Callander
Corson, Robert S., Callander
Craske, Bernard Ivan, Holt
Crowden, S. P., Edinburgh
Cuthbert, T. H., Lancaster
Dainty, E. J., Barrow-in-Furness
Daniel, A. W., Stoke-on-Trent
Davies, Edward J., Llanelly
Davies, John J., Llandyssul
Dewhurst, H. E., Accrington
Dobson, J. H., Great Harwood
Duncan, G. W., St. Andrews
Dunn, W. H. S., Clifton-on-Dunsmore
Elford, Thomas M., Plymouth
Evans, William, Llanelly
Fell, William Henry, Spilsby
Fergusson, James, Edinburgh
Finch, Jacob, Norwich
Finegan, Richard J., Liverpool
Firman, F. W. C., St. Heliers
Fleming, Arthur Irwin, York
Geenty, Owen Charles, Leeds
Gibson, Henry, Lancaster
Gillett, F. H., Moreton-in-Marsh
Glass, Julia, Edinburgh
Goss, John O., Plymouth
Graham, John, Inverness
Grainger, G. W. H. P., Edinburgh
Gray, Herbert C., Oxford
Gray, Percy, Cambridge
Gray, Sydney B., Rugby
Green, E. W., Northampton
Hands, H. F., Cheltenham
Harley, John, Edinburgh
Harper, George, York
Harris, T., Seven Sisters
Hastings, William F., Forfar
Hill, David, Arbroath
Hockey, John A., Trowbridge
Hollingsworth, A., Newcastle-on-Tyne
Hopkins, Frank G., Broad Oak
Hughes, John H., Birkenhead
Hurn, William H., Norwich
Hunt, John Bartlett, Witney
Jannieson, George F., Falkirk
Jessop, John, Birmingham
Johnson, W. P. S., Ahwick
Jones, Arthur Owain, Bangor
Jones, T. A., Llandrindod Wells
Kearney, William John, Duns
Kent, J. H., Mountain Ash
Kitchen, Clement, Nantwich
Knight, Leonard H., Totnes
Lambhead, S. H., Paignton
Laverack, Ernest W., Malton
Lawrence, Harold, Penrith
Leedale, Robert W., Leeds
Leese, Elisha M., Alrewas
Lochran, John, Motherwell
MacDonald, James, Edinburgh
McDonald, Robert, Paisley
Macintyre, John, Oban
McLaren, William B., Newport
McMillan, Hugh, Kilmaurs
McMyn, R. H., Blackburn
Maltby, Frank, Lincoln
Mannell, Wm. C., Okehampton
Mannox, M. M., Birmingham
Mansbridge, Charles S. P., Cheltenham
Matthew, Georgina, Aberdeen
Mayson, Wilfrid L., Blackpool
Milne, Herbert G., Aberdeen
Overton, James L., Banbury
Pain, Frederick J., Folkestone
Parrott, Jasper W. S., Watford
Paterson, Hugh, Wishaw
Paterson, Robert, Leslie
Peebles, F. C., Hamilton
Peel, Wilfrid, Eiland
Phillips, John, Trawsfynydd
Philpin, Wm., Milford Haven
Pickles, Walter H., Liscard
Plummer, Frank, Luton
Powell, Edward T., London
Preston, Ernest, Eccles
Quarry, John, St. Boswells
Quinn, James Francis, Douglas
Rae, David Paterson, Galloway
Reid, John, Port Gordon
Revill, Douglas C., Romford
Rixen, Ernest A., Teddington
Roberts, Walter H., Broadway
Robinson, J. E., Birkenhead
Robinson, J. L., New Brighton
Robinson, William A., Harden
Rowland, E. O., Matlock Bath
Rutherford, Robert J., Cambo
Sanderson, William, Edinburgh
Skinner, Duncan David, Oban
Smith, A. W., Scarborough
Smith, Alfred, London
Souter, James C., Aberdeen
Spencer, Rosa K., High Wycombe
Sprott, Charles E., Maryport
Stephenson, Wm., Jarrow-on-Tyne
Sturrock, John J., Arbroath
Swinton, Alice, Dunfermline
Synnes, May, Highgate
Thom, W. B. P., Linlithgow
Thomas, John Herbert, Cellan
Thomsett, S. E., Matlock Bath
Thomson, Arthur, Grantham
Tippetts, John W., Leicester
Tonkin, John B., Penzance
Unsworth, George, Bury
Wade, Alfred, Leeds
Walker, F. J. B., St. Leonards
Weavers, Horace P., Colchester
Welton, Ernest, Attleborough
Weston, Walter, Todmorden
Wilde, Albert Edward, Denton
Wilkie, Peter M., Giffnock
Wood, Robert, Carnoustie
Woolf, Francis Wm., Redruth
Youngson, John, Aberdeen
Yoxall, Alfred N., Belfast

New Companies and Company News.

KLENE ALLE SYNDICATE (LIMITED).—Capital 5,000*l.*, in 1*l.* shares. Objects: To manufacture, sell, and deal in cleaning-preparations, chemicals, drugs, soaps, &c. Registered by G. M. Folkard, 1 Laurence Pountney Hill, E.C., without articles of association.

CAMBRIAN VINEGAR COMPANY (LIMITED).—Capital 30,000*l.*, in 5*l.* shares. Objects: To acquire the business carried on as "The Cambrian Vinegar Company," at Elland Road, Leeds, and to carry on the business of vinegar-brewers and manufacturers of mustard, oil, pickles, and sauces.

AKED, POTT & GOODWIN (LIMITED).—Capital 7,000*l.*, in 1*l.* shares. Objects: To acquire the business carried on by Arthur Goodwin at Macclesfield, Cheshire, as "Aked & Pott," and at Congleton, Cheshire, under his own name, and to manufacture, sell, and deal in mineral and aerated waters and other drinks, essences, cordials, and chemicals.

BRITISH AND FOREIGN DENTAL MANUFACTURERS (LIMITED).—Capital 3,000*l.*, in 1*l.* shares. Objects: To acquire the business carried on by John C. Rausch at 16 Poland Street, Oxford Street, London, W., and to manufacture, sell, and deal in dental furniture, appliances, implements, and materials. John C. Rausch is the first director.

VIGORO FOR THE HAIR (LIMITED).—Capital 5,000*l.*, in 1*l.* shares. Objects: To enter into an agreement with Frederick A. Roe for the acquisition of his rights in "Vigoro for the Hair," and to manufacture, sell and deal in the said preparation, and any patent and other medicines, drugs or specifics. Frederick A. Roe is to act as chairman and director for five years.

GILBERTSON & PAGE (LIMITED).—Capital 60,000*l.*, in 10*l.* shares. Objects: To acquire and carry on the business of manufacturers of and dealers in food, tonics, medicines, and appliances for game, poultry, dogs and other animals, game and poultry farmers, pheasant-breeders, newspaper-proprietors, millers, bakers, and chemists carried on as "Gilbertson & Page," at Hertford, and at Roydon, Essex. Registered office, Market Street, Hertford.

BRANDRAM BROTHERS & CO. (LIMITED).—Capital 150,000*l.*, in 10*l.* shares (7,500 5-per-cent cumulative preference). Objects: To enter into an agreement with Samuel Wright and Andrew Brandram for the acquisition of the business carried on by them at Rotherhithe, and to carry on the business of saltpetre and brimstone refiners, white-lead manufacturers, lead-smelters, desilverisers, chemists, druggists, drysalts, &c. The first directors are Horace R. Savory, Herbert W. Foskett, and the said two vendors. Qualification, 100 ordinary or 500 preference shares. Remuneration, not more than 1,250*l.* per annum, divisible.

THE SANITAS COMPANY (LIMITED).—The directors of this company have resolved to recommend the payment of a final dividend of 1*s.*, and a bonus of 9*d.* per share, bringing up the total distribution for the year to 13½ per cent. on the fully-paid shares numbered from 1 to 50,000, and a final dividend and bonus of 1*s.* 2½*d.* (in all) on the shares numbered from 50,001 to 60,000. The annual general meeting of the shareholders will be held on February 23.

EPHING NATURAL MINERAL-WATER COMPANY (LIMITED).—On Wednesday, before Mr. Justice Wright, sitting in the Chancery Division to hear petitions for the winding-up of public companies, there was listed for hearing a petition of Mr. L. V. Loyd, asking for the winding-up of the Epping Natural Mineral-water Company (Limited). Mr. Henderson, who represented the petitioner, said he had received a communication from the company's solicitors stating that the company had on Monday passed a resolution for voluntary winding-up. He was quite willing, in these circumstances, that the petition should stand over for four weeks to see if that resolution was confirmed. The petition was accordingly directed to stand over for four weeks.

ULSTER CHEMISTS (LIMITED).—The London financial papers are not very hopeful about the prospects of this concern. The *Financial Times* (January 28) does not imagine "there will be any great rush on the part of the public to secure shares. The concern is one of those unsatisfactory jumbles of a group of small business-houses to which strong objection is reasonably taken by everyone possessed of an ounce of financial acumen. We note that only 60,000*l.* of the authorised capital of 100,000*l.* is being issued to the public at present, but it is significant that a valiant effort is being made to clear off as much as there is reasonable hope to sell of the ordinary shares. The public should take the hint and keep their pockets inviolate. The accountants' certificate is a very unsatisfactory document. There seem to be some seventeen businesses, and the average yearly profits for the past three years are stated at merely 6,789*l.* The profits for each of the three years are not stated, and it may be well to insist that in lumping businesses of this nature it is absolutely necessary to show the separate profits of each business involved. The prospectus is one of the most unsatisfactory we have perused for some time." The *Financial Post* (January 28) is "unable to see anything in the prospectus to warrant the belief that this company is likely to have a prosperous future. A valuation of the various businesses as going-concerns makes them worth, including goodwill, 44,752*l.*, and that is the price asked for them. But we have no means of knowing how much of this sum is put to goodwill. It is a little surprising, too, that the valuers are a Manchester firm. Surely some Belfast firm might have been found capable and willing to make the valuation? The certificate of profits is given by Messrs. Dyson, Wright & Co., who, if we are not mistaken, are very considerably interested in the promotion. Indeed, we understand that Mr. George Pickering, who is represented as the vendor to the company, is a clerk in the Belfast office of these gentlemen, and that Mr. T. H. Oldfield, who represents the company in the purchase, is a clerk in the Huddersfield house of the same firm of accountants. The prospectus says that the businesses to be taken over 'have been successfully carried on for the number of years stated,' and in a list which follows this announcement we find that the life of the various businesses runs from five years up to one hundred years. Are the directors justified in making this statement? Is it true that all these businesses have been, as they say, successfully carried on for a number of years? Is it not rather a fact that arrangements with their creditors have been made in years past by at least three of these concerns? And, if that be true, is it quite fair to the public to allow the statement to go out that all these businesses have had a career of unbroken prosperity?"

COMPANIES WOUND UP.

DINTING SOAP AND CHEMICAL COMPANY (LIMITED), 64 Corporation Street, Manchester.—Mr. W. Chadwick, 10 Market Place, Hyde, C.A., liquidator.

ESCO BEEF-JUICE COMPANY (LIMITED).—Mr. E. M. Sharp, 120 Colmore Row, Birmingham, C.A., liquidator. In each case voluntarily.

SYNTHESIS OF CODEINE.—A German patent has recently been granted for the following method of making codeine: Morphine 285 grammes and nitrosomethylurethane 132 are dissolved in 1 kilo. of methyl alcohol. With the solution is mixed, constantly stirring, a solution of caustic potash, 50 grammes in 800 grammes of methyl alcohol. When the reaction is complete, the methyl alcohol is distilled off, and codeine is extracted from the residue with benzol from which it afterwards separates in characteristic crystals.

INTERNATIONAL CONGRESS OF CHEMISTRY.—This congress is to be held in Vienna from July 23 to August 2. There will be a section of it devoted to medicine and pharmacy. A meeting was held in Vienna ten days ago for the purpose of making preliminary arrangements, and committees were appointed. Dr. Hans Heger is the organiser of the sub-section on pharmaceutical chemistry, and amongst the attractions which he has arranged is an excursion which will include visits to Sarg's factory, a serum-producing institute, and the like. The scientific programme promises to be good.

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Fletchers' Concentrated Liquors

AND THE

NEW PHARMACOPŒIA.

See Diary, 1898, pages 21, 22, 23 and 24.

Editorial + Comments

A LORD MAYOR'S RETROSPECT.

If a comparatively poor young man goes to one of our great
cities, works hard, and climbs to the highest position in that
city, he may fairly be excused if he takes an optimistic view
of that section of the world in which he has moved. The
Lord Mayor of Manchester is a pharmacist; by pharmacy,
or by one of its branches, he has won his way to the dis-
tinguished position he now occupies, and as he looks
back on the fifty years he has known the drug-trade he

finds that a marvellous revolution for the better has taken place in it. He himself is one of the most striking evidences of the advance which he sees, and it would be difficult indeed for him to survey the field and forget himself. The man who served a seven-years' apprenticeship; who has worked hard for three-score years; who has never done a dishonest action, never speculated, and never turned his back on a friend, but who towards the close of his career finds himself crowded out by the brilliant company-pharmacy which comes to his town, and represents him to have been gorging himself all these years with extortionate profits—this man may also be excused if, looking back on his career and surveying the field of pharmacy, he finds it impossible to discard his own personality from the contemplation. And the latter observer is at least as frequent a personage in pharmacy as Lord Mayors are.

It would not be difficult to argue on either side. The volume of business is no doubt vastly larger now than it was in Lord Mayor Gibson's younger days, and in spite of the fact that a box of Beecham's pills, at cut rates, is now sometimes sold where half-a-dozen ninepenny draughts would have been ordered in the old times, we do not doubt that the total profits have enormously increased on the average. Our shops cost five times what they did then to fit up; our houses are furnished at greatly increased cost; and, as the Lord Mayor points out, we buy our grand pianos, take our continental tours, go to balls, dinners, and entertainments of all kinds, while our fathers and grandfathers only indulged in a long pipe, and a glass of gin-and-water occasionally in the evening with their cronies. All this we discussed last year; and surely no one wants to hear any more Jubilee talk for another ten years—at least. Lord Mayor Gibson could prove to demonstration that chemists and druggists overturn much more money, have many more openings for enterprise, and in many cases accumulate more wealth than did those of the earlier half of the century.

On the other side, we are not at all so sure as he is that their relative status has so greatly improved. With all our modern organisation and all our means of communication we doubt if the chemists of to-day could get up so prompt and effective an opposition to an objectionable measure in Parliament as did the druggists of 1813 to the Apothecaries Bill of that date, or those of 1841 to the Hawes Bill. Those men were listened to with respect, and their opposition made an impression on Mr. Gladstone which had not faded away forty years later, when he received a party of modern pharmacists from the Conference. They established businesses which are still among our best, notwithstanding the brilliant professional education of our later days. It is not quite fair of the Lord Mayor of Manchester to say that such men as those we have alluded to were only on a level with the baker, the grocer, and the candlestick-maker. What was really remarkable was that, at a time when there was no legal provision to prevent anybody calling himself a chemist and druggist, the trade should have been able to secure the position and status it then acquired.

Lord Mayor Gibson is a pharmaceutical chemist on the register—he has been actually in practice as such; and it is pleasant to find that he is still proud of his connection with our body. But he made his fortune by departing from the trade, not by sticking to it; and the chemist and druggist has yet to appear who can legitimately claim the title of "His Lordship."

FALSE TRADE-MARKS IN THE EAST.

THE number of infringements against the Merchandise Marks Act of India is greatly on the increase, judging from

the reports of the Governments of Bombay, Beugal, Burma, and Madras for the official year of 1896-7. German manufacturers and their agents appear to be the greatest offenders against the law. In Bombay 697 detentions were reported under various clauses of the Act, of which 610 were subjected to fines and confiscations, the remaining 69 cases being allowed to pass without penalties. The following is a typical case of the methods of certain German manufacturers and importers. A consignment of German-made clinical thermometers was received at Bombay marked "5 minutes," "1 minute," or "1½ minute." They were tested, and found not to register the temperature of the human body in the time stated. Moreover, the name of "T. B. Foster & Sons" was cut into the glass, while the country of origin was so indicated as to be readily effaceable. The invoice-description of the goods stated "Made in Germany—washable," which clearly indicated that this method of marking was not accidental, and that the country of origin was intended to be removed. A substantial fine was imposed, and the thermometers were confiscated subject to redemption for reshipment to Germany on payment of a penalty. As this penalty was not forthcoming the thermometers were destroyed.

In Madras the total number of detections was 203, as against 99 in the previous year. These included provisions, paper, paints and oils, dry colours, medicines, watches, clocks, and numerous other articles. In two consignments of German lavender-water, the bottles were moulded with the words "Lavender-water" without any indication of the country of origin. The report does not state how they were disposed of. No doubt they have long since passed into the bazaar as genuine lavender-water. Japanese ingenuity was manifested in clocks with labels on the backboards in English, and no indication of the country of origin. German port wine, whisky, sherry, and other spirits, all imported under false trade-descriptions, appear to have had a warm time of it at Madras, fines and confiscations being the rule. At Moulmein, in Burma, fourteen separate consignments of paints, branded and declared as "red-lead," "white-lead," and "white-zinc" paints, were analysed, and found to contain very varying, and in some instances infinitesimal, percentages of red lead, white lead, and white zinc, the balance being composed of sulphate of barium, with an organic colouring-matter or brick-dust, as the tint demanded. In Bengal instances have occurred in which reduced white lead has been imported in kegs bearing no marks whatever. In such cases the Customs authorities can do nothing, though they have reason to believe that it was intended to mark the goods before placing them on the market.

It is quite obvious that the vigilance of the authorities is not wasted, and their report is one more lesson to British houses to do their utmost to make Indian buyers familiar with the style in which they put up their goods. There are few ways in which this can be done, but one of the best was well exemplified in the circular which Messrs. Ferris & Co. inserted in THE CHEMIST AND DRUGGIST last week, and which contained a facsimile of a bottle of "nepenthe." Such facsimiles give foreign buyers the opportunity of comparing originals with suspicious goods which may be offered to them, and as foreign imitations always err in one or two little points, the genuine facsimile becomes fatal to deception.

EXCITEMENT IN CLOVES.

WE briefly indicated in our Trade Report last week that cloves were having an upward tendency, and since then there has been much excitement in the market, the advances

obtained having reached as much as $1\frac{1}{4}$ d. within four days—a rise, say the experienced, which is quite unnatural, for it is well to bear in mind that the position of cloves remains unchanged in respect to the source of supply. We pointed out in our issue of December 11 that there would not be much of the new crop to spare for Europe, and that our stock would diminish during the year. So far the figures are as follows:—During the last eight weeks 1,115 bales have been landed and 3,489 delivered, thereby reducing our stock from 72,370 to 69,996 bales. As the season for picking lasts from August to December, the harvest is over, and we know that it has given a small supply, being estimated at about 40,000 bales of 140 lbs. each. From a Consular report just issued (C. 8,701, price $1\frac{1}{2}$ d., which we advise those interested in cloves to read), we take the statistics of the total annual production of Zanzibar and Pemba, reducing the figures to bales for convenience:—

	1892	1893	1894	1895	1896
Bales ...	89,400	91,800	127,900	134,500	89,200

Vice-Consul O'Sullivan, the writer of the report, alludes to the 1896 crop as one of comparative failure, but the comparison is with its promise, which was that of a record crop. The consequences were disastrous to the planters; with barely an average crop, and a price ($2\frac{1}{2}$ r. per frasila of 35 lbs.) the lowest ever known, brought about by the bumpers of the two preceding seasons, they were unable to pay their way, and as mortgages fell due the estates were sold to meet the demands of the Indian money-lenders. "The various plantations put up to auction by order of the Court at Zanzibar," writes the Vice-Consul, "are either absolutely unsaleable, or else are disposed of for absurdly small sums. In several cases the mortgagees have themselves bought in the properties at nominal prices, as a speculation, trusting that perhaps outside purchasers would be forthcoming in the future, which means that such properties will, in the meantime, be allowed to take care of themselves, and in a short period of neglect a Pemba plantation gets so overgrown with underbush as to be rendered almost worthless." Although only issued last Friday, the report is dated September 30, 1897, and the short crop of last season is fully accounted for by the financial embarrassments of the planters, and the consequent neglect of their properties, as pointed out in our quotation.

While the rise in values is attributable partly to the short supply, speculation has also influenced it somewhat, and at the time of writing the market shows a lower tendency, a drop of $\frac{1}{4}$ d. being recorded on Tuesday. In our Trade Report we give the latest prices obtained at Thursday's spice-sales. The price of cloves has gone up in sympathy with the rise in the spice, the quotation by distillers for wholesale quantities being 2s. 10d. per lb., which shows a rise of 6d., the rule being to advance or lower the price 6d. per lb. for every 1d. per lb. in the rise and fall in the price of the spice; but some distillers are quoting "without engagement," which is the best indication of the market feeling. We may add that the stock of cloves in Hamburg is believed to be at least equal to that in London, and, with what is held elsewhere, there is more than enough in hand to keep the world going until this year's crop becomes available.

CARBON IN THE AIR.

"Air, to be healthy, must be made up in proper proportions of carbon and oxygen," says one of the learned scrap papers. This one is entitled *The Happy Home*. If it becomes overloaded with carbonic-acid gas, *H.H.* goes on to say, "it is really dangerous to health, as it is in time most certainly capable of spoiling the very best complexion." The climax is amusing.

THE FAILURE OF THE BOOM.

Surely no enterprise ever had so much free advertising with so poor an outcome as the Pharmaceutical Society. From end to end of Great Britain loyal members from the President downwards, including an army of specially-appointed local secretaries, have been booming it in season and out of season, pleas, promises, entreaties, cajoleries, and threats have been employed, the deeds of twenty years ago and those of twenty years to come have been paraded, new titles have been suggested, and "friendly words" showing up the iniquities of rivals have been published, and the net result is a decrease of twenty-three in the roll of members, associates, and students of the Society. The result becomes worse the more it is looked into. Pharmaceutical chemist members, the backbone of the Society, have declined numerically from 1,334 to 1,296. They have been dropping off persistently. Chemist and druggist members, who must ultimately die out, are 549 now against 569 a year ago. Associates in business have gone up from 1,651 to 1,687, but these have been naturally recruited from the section of associates not in business, and this class has fallen from 984 to 946. It is true that the 36 new men pay a guinea each, while the 38 who have dropped out only paid half a guinea subscription, but the ugly feature is that new blood is not being tempted. The "Students of the Society" are 27 better, their numbers having increased from 846 to 873. Lastly, it should be noted that life members are 10 better than they were, 297 against 287. It may come to be realised in time by those who govern the Society's affairs that a little more action and a little less canvassing is what is wanted.

AMBER IN MEDICINE.

A propos of the note on this subject which was printed in our Winter Number, the fact is worth recalling that Thomas Carlyle has something to say about amber in the early chapters of his "History of Frederick the Great":—

These Preussen (he says) were famous through all the centuries for the amber they had been used to fish, and sell in foreign parts. Amber, science declares, is a kind of petrified resin distilled by pines that were dead before the days of Adam, which is now thrown up in stormy weather on that remote coast, and is there fished out by the amphibious people—who can likewise get it by running mine-shafts into the sandhills on their coast—by whom it is sold into the uttermost parts of the earth, Arabia and beyond, from a very early period of time. No doubt Pytheas had his eye upon this valuable product when he ventured into survey of those regions, which are still the great mother of amber in our world. By their amber-fishery, with the aid of dairy-produce and plenty of beef and leather, these Heathen Preussen, of uncertain miscellaneous breed, contrived to support existence in a substantial manner.

The sage was a little addicted to working in bits of information of this kind, apparently to convince us that he really was an erudite man; but he always managed to hit the facts, and to put them in an interesting way.

INDIAN HEMP.

The fact is not too well known to pharmacists and physicians that much of the Indian hemp of commerce is comparatively worthless, and that by keeping even the most active samples of the drug deteriorate. Dr. Prain, of the Royal Botanic Gardens, Seebore, Calcutta, has recently reported to the Excise Board of India on some experiments which he has made on ganja, the best kind of the drug. He finds that when stored in hermetically-sealed tins, the water present in the hemp produced fermentation, and the ganja developed a strong rancid odour, and became "quite unfit for smoking"; but he finds that if the ganja be kept in dry deal perforated boxes it can be stored for two or three years without fermenting or losing its narcotic properties, and he recommends this method of preservation. Dr. Prain calls attention to a paper by L. Lapin, of Dorpat, who has recently investigated the Indian hemp plant, with a view to

the isolation of the true active constituent. He has obtained a substance, "cannabinon," which appears to have all the physiological properties of the plant. From the description of this substance given by Lapin, it seems to be identical with the "cannabinol" obtained by a much simpler process from "charas" (Indian hemp resin), by Messrs. Wood, Spivey, and Easterfield (*C. & D.*, xlviii., 624, and l., 272). Dr. Prain, however, regards it as unlikely that an extremely stable substance, such as "cannabinol," should be the active constituent of a drug which so readily loses its physiological properties.

CRITICAL EXAMINERS.

The Board of Examiners for Scotland are perhaps a little too eager to advocate a compulsory curriculum. There is not a bit of the bright side of the examinations in their report, and it is difficult to imagine that some of the examiners are men who have gone through the same stages of ignorance and knowledge as the unhappy young men upon whom they comment. A little more of the milk of human kindness in the report, and some consideration for the fact that, after all, pharmacy is a trade which cannot afford a University education might be thrown into the next report, and we hope when the Board of Examiners for England and Wales come to write theirs these considerations will have some prominence.

IS RECIPROCITY WANTED?

Our Australasian offshoot has taken a thought regarding intercolonial reciprocity, and acted upon it, with somewhat startling results. It was to ascertain how far medical men take advantage of the reciprocity arrangements between Victoria and New South Wales. For the last twelve months the figures show that 12 medical men migrated from Victoria to New South Wales and 2 from N.S.W. to Victoria. We do not suppose that chemists migrate more abundantly, or that the migrations to and from the other colonies are greater, but even for this number the advantage seems worth trying for.

A UNIVERSAL EXHIBITION.

There was a rumour some time ago that a great exhibition was to be held in Earl's Court next year, but no particulars were forthcoming. We now learn from an American source that this "Universal Exposition," as it is to be called, is to be managed by Mr. Imre Kiralfy.

Sections will be devoted to the largest manufacturing and producing countries of the world, and considering that it is over twelve years since a universal exposition was held in the great city of London, and judging from the ever-increasing development of American trade during this time, it is confidently expected that American producers and manufacturers will avail themselves of this opportunity to extend their business and to take the first rank amongst the competitors for the commerce of the world. The best and most elegant location of the exposition has been reserved to the United States department, and no pains will be spared by the management to afford every facility to American exhibitors. Mr. A. Macchi has been appointed Commissioner for the United States.

It appears from this that the "Universal Exposition" is to be one of the affairs which we have had annually in London for some time, and if Barnum & Bailey remain with us until the autumn the Earl's Court Show will have to be pretty good if it is to be a success.

AFTER MANY DAYS.

The Edinburgh University has just conferred the Cameron prize upon Professor T. R. Fraser, M.D., F.R.S., for his research on strophanthus. The prize is awarded each year to anyone who in the preceding five years has made any "highly important and valuable additions to practical therapeutics." Considering that it is a dozen years since Professor Fraser first published his work on strophanthus, it

is, to say the least, remarkable that his colleagues should have delayed their recognition of the value of his observations until the honour comes perilously near the outside of the prize regulations.

TROUBLE IN THE BRITISH MEDICAL ASSOCIATION.

The Council of this Association does its business in the old-fashioned way—i.e., in presence of an official reporter and none else. Hence a meeting held on January 19 was not reported until ten days later. It was a lively meeting, at which Dr. S. Woodcock, of Old Trafford, brought forward a motion censuring Dr. Robert Saundby, President of the Council, for supporting Sir Walter Foster for a seat on the General Medical Council without taking the advice of the Council of the Association. What Dr. Saundby did was to write to the Secretaries of the Association's branches from his private address and ask them to get all the support they could for his nominee. A motion was also brought before the meeting expressing dissatisfaction with the way the Association's journal had behaved itself while the election was going on. Its offence was leaving the matter severely alone—an excusable thing seeing that the President of the Council was acting so strongly. Dr. Saundby faced his opponents well, admitting that he might have done better, and the motions were defeated by an overwhelming majority.

PRECEPTORS PRECEPTED.

At last week's meeting of the College of Preceptors several of the members complained about the severity of questions in arithmetic and French given in the Second-class examination of the College last Christmas. The arithmetic was a particularly arduous and severe paper, and the Dean admitted as much. We mention the matter because the College conducts the British Pharmaceutical Preliminary examination, and we have occasionally heard complaints about some of the arithmetic questions set for that examination. Seeing that members of the College of Preceptors complain about their own Examiners, it cannot be wrong for the Examiners of the Pharmaceutical Society to pay more attention to the Preliminary questions before they are printed. We understand that there is not at present any such supervision, which is a mistake, seeing that the Act does not authorise complete delegation of the duties to outsiders.

MILK AND WATER.

Mrs. Percy Frankland has written a leaflet for the National Health Society on "The Advantages of Boiling Drinking-water and Milk." It is a plain statement of the dangers, especially during epidemics, of not boiling these universal fluids, and the writer tells how the boiling should be done. The leaflets are obtainable from the Society, 53 Berners Street, W., at 6d. per doz. We mention it under the idea that there are many chemists who may find it good business to distribute the leaflet amongst some of their customers, along with particulars of water-filters and milk-sterilisers. Nearly all the publications of the National Health Society are good stock for chemists to have. We cannot say that they will pay directly, but chemists are sure to earn the gratitude of those under whose notice they bring them.

NO APPRENTICES EMPLOYED.

A prescription-envelope, with the inscription in a prominent place, "No apprentices employed in this establishment," was handed us the other day. We hardly think it is a fact to be proud of, and might even be classed as "information out of place." The meaning, probably, is that apprentices are not employed in compounding prescriptions; but then they never are—at least, without supervision. Where would the future pharmacists come from if the greater proportion of chemists shirked their duty in this matter of training apprentices?

Bacteriology as a Side Line for Chemists.

By F. PILKINGTON SARGEANT, Ph.C.

OF late years much has been done both in England and America to develop a more professional spirit amongst chemists and druggists. As a result of these efforts we find that they are striving to make more use of their education than heretofore by engaging in profitable scientific pursuits, which, however, can only be profitable to chemists in certain neighbourhoods and with a certain class of clients. One of the most interesting and fairly profitable of these subjects is bacteriology, and as the practice of it requires care and cleanliness more than expensive apparatus, it can easily be brought within the reach of the chemist. A medical man often has sputum which he wishes to be examined, or the local authorities may require a bacteriological examination of water, &c.; and there is no reason why a chemist, with a little experience, should not perform these operations, and so add a little to his income. I will endeavour to indicate the lines on which intending students of the science should proceed.

Bacteria are minute, colourless cells, generally transparent, and they contain no nucleus. Their contents are often homogeneous, but sometimes are oily and granular. They may be round (cocci), united in groups of eight (sarcinæ) or in chains (streptococci), or they may consist of minute straight rods (bacilli), the smallest of which are the influenza-bacilli. Sometimes the rods are spirally coiled, forming spirilla. The pellicle often found on decomposing organic matter is composed of the extended cell-membranes of the bacteria which have conglomerated. They are reproduced by fission or splitting, but often by means of spores, which are formed either in the centre or less frequently are terminal. The products of their metabolism are numerous; sometimes colouring-matters are produced (never chlorophyll), very often foul-smelling liquids, though in some cases, as in the bacillus of Asiatic cholera, a pleasant-smelling liquid is excreted. These bodies, when existing in quantity, are fatal to the bacilli producing them. They may be obtained in various ways—by boiling pure cultures of the required bacilli, filtering and purifying by means of alternate solution in dilute alcohol and precipitation by absolute alcohol, in which they are insoluble. It may be of interest to note the method by which Koch obtained his tuberculin. He bred the tubercule-bacilli in an alkaline infusion of veal (taking precautions that no other bacilli were present) containing 1 per cent. of peptone and 4 to 5 per cent. of glycerine. This solution, having received the seed-culture, was kept at a temperature of 38° C. for three or four weeks, when a pellicle formed; this broke up in three or four more weeks, and the ripe solution was filtered through infusorial earth. Such bodies are alleged to have a very powerful physical action, and are supposed to be of great therapeutic value in cases where the bacilli producing them are concerned.

In the study of bacteriology the principal processes are the preparation of media and the sterilisation of instruments, &c., used in the preparation and inoculation of such media. Sterilisation is rendered more difficult by the powerful resisting action of the spores, which are able to retain their vitality at a temperature far above that at which the parent bacteria would succumb. The most efficient steriliser for instruments is the Bunsen flame. Where, however, from the nature of the tools, it is inapplicable they should be heated in an oven to 170° C. for half an hour, or in a steam-bath for one hour, the last-named being best for such things as cotton-wool, great care being taken in drying. To sterilise

gelatine it must be heated on a water-bath for a quarter of an hour daily, during three days. If heated longer at once, it loses its power of solidifying. Blood-serum so treated would decompose, hence it must be heated to 55° C. for three or four hours daily during a week. Sometimes it is necessary to use chemical sterilising-agents, the best for the purpose being 0.1-per-cent. solution of corrosive sublimate. Carbolic acid, lime, chlorine-water, osmic acid, &c., are also used. Chloroform is also a very useful sterilising-agent owing to its low boiling-point. In using chloroform to sterilise a liquid, it is mixed with the liquid, allowed to stand some days, and then heated to 62° C. for one hour, this process killing both bacilli and spores. An incubator is also required. This is simply an oven, preferably with felt sides, glass doors, and a thermo-regulator attached, capable of being retained at a temperature of about 37° C. Several bell-jars, square glass plates, water-baths, hot-water funnels, and test-tubes complete the apparatus required, it being taken for granted that all chemists possess a fairly good microscope.

To fit up a bacteriological laboratory for advanced work requires an initial expenditure of about 10*l*, invested thus:—

	£	s.	d.
Steriliser	2	10	0
Incubator	4	0	0
Counting-apparatus	0	15	0
Coddington lens	0	15	0
Regulators, thermometers, Pasteur's flasks, &c.	2	0	0

As to the preparation of media and cultivation of the micro-organisms, gelatine media are unmistakably the best for a beginner, and the following process is the one generally recommended for its preparation:—

Five hundred grammes of good meat, free from fat, are chopped fine and allowed to stand in 1,000 c.c. of water for twenty-four hours; the liquid is then filtered and heated on a water-bath for forty minutes to precipitate albumen, and again filtered, making up to 1,000 c.c. with water if necessary, then adding 100 grammes gelatine, 10 grammes peptone, and 5 grammes of common salt, allowing to stand for a while, then heating on a water-bath to dissolve the gelatine, keeping the bulk made up with water. Now the reaction of the liquid is noted, and, if acid, neutrality is produced by means of caustic soda. It is then filtered through paper in the hot-water funnel, and if the filtrate is not clear a little egg-albumen is added, the fluid is boiled and refiltered.

Some of this prepared solution is then introduced into test-tubes (about filling a quarter of the tube) carefully by means of a funnel, none of the mass being allowed to touch the side of the upper part of the tube. These test-tubes must have been sterilised by immersion in boiling water for one hour. Having introduced about 10 c.c. of the medium, the tubes are plugged with cotton-wool, which has the remarkable property of preventing the passage of bacteria, and kept heated in steam for a quarter of an hour daily for five days. They are then ready for inoculation—that is, for the insertion of seed-cultures containing any particular bacterium. These seed-cultures are introduced by means of a sterilised platinum wire, which is first inserted in the sputum or other body from which it is desired to extract the bacilli, and then inserted into the gelatine in the tube, which is held mouth downwards during the temporary removal of the cotton-wool plug. Plate-cultures, potato-cultures, &c., as not being suitable for one just commencing the study, need not be more than mentioned. Some time after inoculation, varying with different bacilli, a white or coloured streak will be observed to form in the course of the platinum needle. This is due to the formation of colonies of bacilli, and if another tube be inoculated from one possessing such a streak, a culture will be obtained of greater purity than the first; and by continued reinoculation a perfectly pure culture will be finally obtained.

the characteristics of which can then be definitely ascertained.

Having now briefly sketched the main points in bacteriology, I may refer to its value to the chemist. It is impossible to describe in detail here the many processes involved in the science, but the two which are of most general interest may serve as types. The value of a bacteriological examination of drinking-water is not very great, since it is almost impossible to distinguish in a reasonable time the pathogenic microbes from those which are non-pathogenic. The total quantity of microbes present in a sample of water is therefore all that is generally required, for, as Professor P. F. Frankland has pointed out, if there are a large number of microbes of any description present there is a greater chance of harmful microbes being there than if only a few were present. As to how many colonies might be allowable opinions differ. Miguel says a good sample ought not to yield more than 10,000 colonies per c.c.; other writers, however, give a lower estimate. If a sample of water contained, say, over 0.1 per million of albuminoid ammonia, and gave over 5,000 colonies per c.c., then it would certainly not be safe for human consumption.

A sample of water is obtained in a sterilised bottle, and the examination of it must begin at once before the microbes have time to multiply. One cubic centimetre is well mixed with some of the melted gelatine prepared as above and poured over a square glass plate under a bell-jar, both sterilised. When the gelatine has solidified the plate is placed in such a position that it may be retained at about 22° C. for several days, when numerous colonies are found to have developed. These are then counted by placing a glass marked into squares, and called Wolfhugel's counting-plate, over the gelatine, though not touching it, and examined by means of a lens. The number of colonies in one square being noted, this number multiplied by the number of similar squares on the plate will give the number of microbe colonies in 1 c.c. of the water.

In the examination of milk the quality rather than the quantity of microbes is of importance, as also in the examination of the sputum of suspected phthisical subjects, which is carried out as follows:—A little of the more dense portion of the sputum is spread on a cover-glass by means of a needle, and dried a little. It is then placed in an aniline water-solution of fuchsine, gently warmed, and allowed to stand for five minutes. It is then removed and placed in a 3-per-cent. solution of hydrochloric acid in alcohol for one minute. This removes the stain from all but the bacilli. It is now rinsed with water, and a drop of aqueous methyl blue is poured over it, when it is again washed, and dried by quickly passing it through the flame of a spirit-lamp about three times. It is now ready for examination. If the *Bacillus tuberculosis* be present, numerous rodlike bodies of very characteristic form will be noted. They generally appear to be more or less ringed, their markings being brought out wonderfully by the double stain. To examine milk, one drop of the suspected milk is evaporated on a cover glass with one drop of a 1-per-cent. solution of sodium carbonate, which saponifies the fat, and is then treated as above. Did space permit, many more examples might be brought forward to prove that bacteriology is a most interesting, appropriate, and possibly a profitable science for the chemist to pursue; and, particularly to the numerous students of photomicrography, a field is opened up which cannot be surpassed in providing material for delicate work. The following books give a good introduction to the science:—"Elements of Bacteriology," by Dr. S. L. Sehenk (Longmans 10s.), and, for more advanced students, "Manual of Bacteriology," by Crookshank (Lewis, 21s.).

Legal Reports.

COUNTY COURT CASES.

CHEMIST AND ASSISTANT.

ON January 21, at Brentford County Court, a young man named Weeks sued Mr. W. Ham, chemist and druggist, High Street, Hounslow, for wages due. Plaintiff entered defendant's service on November 15 of last year, at a salary of 35s. a week. Defendant gave a week's notice on December 11, and on the 18th paid a fortnight's wages. Plaintiff claimed in consequence of an agreement that there should be a month's notice on each side, this being the established custom amongst chemists. In cross-examination plaintiff said he entered Mr. Ham's service as an unqualified dispenser, capable of doing the ordinary dispensing of a chemist's shop. Some of the names on the bottles he could not read, but that was in consequence of the worn state of the labels. Mr. Ham had said he was not quick enough in the hospital-work. His previous experience had been as dispenser to a doctor and to a chemist at Bristol. Dispensers to chemists required more knowledge than dispensers to doctors. His inability to make up prescriptions was not due to his own ignorance. Mr. Robinson, for the defendant, said Mr. Ham was unable to be present owing to the demand for his services in consequence of the increased sickness of the district. The Judge granted an adjournment on defendant paying costs.

BREACH OF A BOTTLE-CONTRACT.

IN the Lord Mayor's Court on January 28, Bishop's Pure Drug Company sued H. Pothe & Co., bottle-merchants, to recover damages for breach of contract by non-delivery of certain bottles. On September 3, 1897, the plaintiffs ordered from the defendants forty-two gross of bottles of a peculiar pattern and size, intended to contain certain fluid beef of which the plaintiffs were the manufacturers. They were to be delivered in instalments within a year, and the first delivery, according to the written order, was to be made within five weeks. According to the plaintiffs, the contract was broken, and in consequence of the non-delivery of the bottles within the specified time they had had to buy bottles at a higher price, and had lost profits. They claimed 5*l.* odd, expenses, and 14*l.* 8s., estimated loss of profit. Counsel for the defendants admitted a breach of contract, but argued that the plaintiffs had really suffered very little damage. The jury found for the plaintiffs for 12*l.* 17s. A sum of 2*l.* 4s. was allowed to the defendants upon a counterclaim, and judgment was entered for the plaintiffs for 10*l.* 13s.

DAMAGES FOR A STREET COLLISION.

AT Southwark County Court on January 31, before Judge Addison, Q.C., Frederick Charles Thornhill, corn-merchant, Pimlico Road, sought to recover from Jos. Crosfield & Sons (Limited), soap-manufacturers, the sum of 6*l.* 5s., damage for injury to a van through a collision. Mr. Timbrell, solicitor, represented the plaintiff. When the case was called on, the defendants' carman asked for an adjournment for a short time, as "they had gone to get a solicitor." His Honour: Certainly not. I shall not allow the Court to be treated in that way; it is nothing less than contempt. If the defendants were poor ignorant people I could understand such an application, but a limited company ought to be able to conduct their business differently. According to the evidence for the plaintiff, his carman was driving a van laden with flour on the left-hand side of the road, when defendants' van crossed the road and collided with it, doing damage to the extent of 6*l.* 5s. Defendants' carman said his van could not have done the damage alleged; it was much too light. After hearing several witnesses his Honour gave judgment for the plaintiff for the amount claimed, with costs. Soon afterwards a solicitor said he had been instructed to defend. His Honour: The case is finished, and I have given judgment. The defendants are a substantial firm, are they not? The Solicitor: Yes, but that is no reason why they should pay a claim for which they are not

liable. His Honour (warmly): No; but it is a reason why they should attend to business, and not treat the Court with contempt. They were served with this summons weeks ago, and then when the case comes into court I am told that they, a limited company, have gone for a solicitor. At present they have to pay 6*l.* 5*s.* and costs, and if they want to alter that they must go to the Court of Queen's Bench.

FEE FOR EXTRACTING A TOOTH.

At the Cardiff County Court on February 2, before Judge Owen, Mr. Wm. John, dentist, brought an action against Mr. H. Peters to recover 1*l.*, balance of an account for the extraction of a tooth. Plaintiff said the defendant came to him on December 17 and asked him to extract a tooth. For the operation witness charged him 1*l.* 1*s.*, but defendant could only pay 9*s.*, and promised to send the balance. This, however, he had not done. Defendant gave a different version of the transaction. He said Mr. John told him that his usual price was 10*s.* 6*d.*, but he would let him off with 7*s.* 6*d.* After the operation he complained of having been obliged to use a "tremendous lot of gas," and defendant gave him 1*s.* 6*d.* extra. Plaintiff: The defendant offered 5*l.* if I would relieve him of the agony he was suffering. His Honour: You ought to have taken the money and drawn the tooth. Plaintiff: I ought to have done. His Honour eventually gave judgment for the defendant.

RESPONSIBLE FOR THE ERRAND-BOY.

At the Southport County Court, on January 25, Francis J. Smith, chemist and druggist, sued Mary Fisher (widow), newsagent, for 7*l.* 18*s.*, the cost of replacing a plate-glass window in the plaintiff's shop smashed by the defendant's errand-boy. It appeared that the boy had to bring the morning papers from the railway-station, and as the usual second boy did not turn up this one borrowed a trolley to enable him to take all the papers to the shop at once. In returning the trolley the lad came round a corner on the footpath so sharply that he demolished the window. The Plate-glass Insurance Company replaced the window, and plaintiff was really claiming on the company's behalf. The question resolved itself into whether the defendant was responsible for the errand-boy. His Honour, having heard the defendant's evidence, said the boy had used the trolley before without remonstrance, and except for going on the footpath he did the most reasonable thing under the circumstances, as he could not carry all the papers himself, and it was desirable for him to minimise delay, as he was late in the delivery of the papers. Judgment, therefore, would be for the plaintiff.

RENT OF CARBONIC-ACID TUBES.

In the City of London Court, last week, Mr. Commissioner Kerr, an action was brought by Messrs. Uhlmann & Keutgen, manufacturers of carbonic acid, 1-5 Cooper's Row, who sought to recover 8*l.* 3*s.* 5*d.* from Mr. A. Lipman, 23 Brick Lane, for carbonic-acid tubes supplied. Mr. H. P. Yglesias, plaintiffs' solicitor, said that the plaintiffs supplied the defendant with carbonic acid in steel tubes, and the gas was paid for according to the contents of the tubes. If the tubes were kept beyond a period of thirty days a rent was charged. The defendant had kept the tubes, and now the plaintiffs wanted to be paid their rent. Mr. Osborn, defendant's solicitor, said his case was that they had never agreed to pay any rent. There was no contract to that effect. The original was produced, but Mr. Osborn said the defendant could neither read nor write. The learned Judge considered whether the document ought not to have been stamped. When he was told that each tube was of the value of about two guineas he said there was no need for the agreement to be stamped. Mr. Osborn said of course the gas could not be delivered except in tubes, but that was no reason why they should pay for the tubes, or even a rent. Mr. Commissioner Kerr said the defendant could have the case tried before a jury if he liked, by taking the necessary steps within three days. Otherwise there would be judgment for the plaintiffs. He thought the defendant had better think twice before he took the further step.

SALE OF FOOD AND DRUGS ACT.

CONCENTRATED ESSENCE FOR VINEGAR.

At Rochdale Police Court, on January 22, E. Fletcher, drug-store keeper, was proceeded against for selling vinegar not of the nature, substance, and quality demanded. Mr. Leach (Town Clerk) prosecuted, and Mr. Roberts defended.

Mr. Leach said the inspector of nuisances visited defendant's shop and purchased a pint of vinegar, for which he paid 3*d.*

The public analyst said that this vinegar was an artificial mixture, and not the product of fermentation.

After the inspector had given evidence, Mr. Roberts stated that the vinegar was made from an extract which was guaranteed by the inventors and proprietors, Messrs. Lorimer & Co., of London, to be of the highest possible purity. It was admitted that the inspector did not ask for malt vinegar.

The defendant's assistant was called as a witness, and stated that he mixed the concentrated essence in accordance with his instructions. In fact, the vinegar was, if anything, stronger than it need have been, because he had mixed the essence with water in the proportion of 1 to 10 instead of 1 to 12.

The Magistrates' Clerk pointed out that the charge was one of selling something that was not vinegar.

Mr. Roberts asked for an adjournment, explaining that he had received a telegram from Messrs. Lorimer & Co. stating that a representative of theirs would attend. The representative had, however, been detained.

The Bench declined to adjourn the case, and imposed a fine of 10*s.* 6*d.* and costs.

Mr. Roberts said Messrs. Lorimer & Co. would probably appeal.

The Clerk: You can go to the Quarter Sessions.

[Messrs. Lorimer & Co. inform us that they heard nothing of the analysis of this vinegar until the morning of the day when the case was to be heard. They then wired to their representative in the district, repudiating all connection with the article sold, stating that the analysis was incorrect, and did not describe the vinegar from their essence. They state, further, that they did not authorise the solicitor to act for them. Their essence is expressly described by the label to be prepared with English malt and acetic acid, is warranted free from sulphuric acid and all unwholesome ingredients, but is not produced by fermentation, and vinegar prepared from it should not be sold as fermented or British Pharmacopœia vinegar.]

SPURIOUS BEECHAM'S PILLS.

In the Chancery Division, on January 27, before Mr. Justice Stirling, a motion for an interim injunction pending the trial of an action was brought by Mr. Beecham to restrain Mr. C. J. Wain, pharmaceutical chemist, of Newcastle-under-Lyme, and Shelton, near Hanley, from passing off as Beecham's pills not of plaintiff's manufacture. Counsel for the plaintiff, however, intimated that it had been arranged to treat the motion as the trial of the action, defendant consenting to a perpetual injunction, and to pay an agreed sum as damages and taxed costs. An order was made accordingly.

On January 28, Mr. Edmund Jones, chemist and druggist, Miles Bank, Hanley, was defendant in a similar case. It was in this case also agreed to treat the hearing of the motion as the trial of the action. Defendant submitted to a perpetual injunction, and to pay an agreed sum as damages and costs.

A similar result was arrived at in a case against Mr. A. T. Harries, chemist, Stoke-on-Trent, in Mr. Justice North's Court.

[Mr. Edmund Jones has issued an advertisement explaining that the wrong pills were supplied during his absence from business. He says he has made it a rule in his business, if he happened to be out of an article asked for, never to offer any substitute without explanation to the customer.]

A SINGAPORE BUSINESS DISPUTE.

MR. HOWARD, the Singapore Magistrate, has recently decided a case in which Mr. Frederick Dreiss, a German apotheker, charged Mr. Emile Kahlert and Dr. von Krudy

with cheating him by selling him the "Medical Office," Orchard Street, Singapore, for \$9,000, which it was not worth. The prosecutor, in the course of his evidence, stated that his father had had a large chemist's shop in Germany, which was sold for 250,000m., of which he got 16,000m. He had been in business as a chemist in Manila for three years before settling down in Singapore. He alleged that the defendants had inflated the returns of the "Medical Office," and that Kahlert had told him that he made \$52,000 out of it in four years. Evidence was, however, brought to show that this statement did not apply to the "Medical Office" merely, and several witnesses, including Dr. F. de Souza and Mr. Wispauer, chemist, Battery Road, said it was a good business, the latter stating that he knew Dr. von Krudy was doing well in it. After counsel had addressed the Court, the Magistrate said he was unable to frame a charge of cheating against the defendants, and they would, therefore, be discharged.

[We hear that Dr. von Krudy proposes to raise a civil action against Mr. Dreiss, claiming damages for the false charge.]

ILLINOIS ENDORSES IMITATIONS.

MESSES. RIGAUD & CHAPOTEAUT, of Paris, the makers of Santal Midy, have been endeavouring for some time to bring to book persons in the United States who have been putting on the market there a spurious "Santal Midy," and they succeeded in bringing five such persons before Judge Ewings in the Criminal Court, Chicago, on January 7. The indictments were for "counterfeiting labels and trade-marks" and "conspiring to injure the business." The allegations appear not to have been disputed, but the Judge decided that the laws of Illinois permitted anyone to imitate or counterfeit any labels, trade-marks, signatures, names or addresses, or any other forms of advertisements with impunity and without fear of criminal proceedings if they had not been registered in the State. Registration at Washington, which foreigners regard as sufficient for the whole Union, seems, therefore, not to cover Illinois.

AERATED CITROID SYNDICATE v. BAMBERG.

IN the Chancery Division, on February 3, before Mr. Justice Romer, Mr. Rylands, on behalf of the plaintiffs in this case, moved for an injunction to restrain the defendant from communicating a particular invention by him, or selling or disposing of it, to any but the plaintiff company, as the company claimed he was under contract to communicate to them only. Counsel said that the company was incorporated for the purpose of buying from the defendant and another a certain patented invention for manufacturing effervescent cartridges for aerated liquids, and there was a contract by which Bamberg was to assign to the company that particular invention and all other discoveries relating to aerated liquids, and aerated waters and other beverages, in effect that all other inventions made by the defendant should be communicated to the company, and that the defendant should assist them in getting patents. The assignment was made on February 13, 1896. The invention was for compressed tea, coffee, and cocoa tablets made with milk, sugar, &c., and provisional protection was granted for it. The defendant had since registered an improvement in some tea, coffee, and cocoa tablets in his own name, and contended that these were not covered by the original assignment. He had stated in a letter that someone else had an interest in the article.

Mr. Justice Romer: But it does not matter what he communicates to anyone after he has applied for a provisional specification.

Mr. Rylands: Yes; but he may sell it.

Mr. Justice Romer: Of course that is different; but you cannot prevent his divulging it.

Mr. Rylands said, if his Lordship thought that, he would ask for an injunction to prevent the defendant selling or disposing of the invention to anyone else.

Mr. Justice Romer said he would grant the plaintiffs that over next Thursday.

We regret to hear that Sir Richard Quain, Bart, M.D., President of the General Medical Council, has been very ill during the past week, but on Thursday his condition was more satisfactory.

Deed of Arrangement.

Wareham, Charles Henry (trading as C. H. Wareham), Western Road and Terminus Road, and residing at Summerside Villa, Granville Road, all Cowes, Isle of Wight, mineral-water manufacturer and coal-merchant. Trustee, Gilbert T. Chadney, 70 Hereford Road, Bayswater, London, clerk. Dated, January 25; filed, January 29. Liabilities unsecured, 9267. 19s. 3d.; estimated net assets, 1627. 10s. The following are scheduled as creditors:—

	£	s.	d.
Barnett & Foster, London	67	0	0
Boake, Roberts & Co., London	24	0	0
Chadney, Gilbert, London	56	0	0
Chadney, I. M., London	213	0	0
Cracknell, A. J., London	45	0	0
Fraser & White, Portsmouth	143	0	0
Game, W., Newport	16	0	0
Isle of Wight Central Railway Company, Newport ..	16	0	0
Pring, S. & D. S., Newport	207	0	0
Stevenson & Howell, London	20	0	0
Wood, J. R. & Co. (Limited), Fareham	94	0	0

Gazette.

PARTNERSHIPS DISSOLVED.

Brodie, W. H., and Escombe, W., under the style of Brodie & Escombe, Battle and Robertsbridge, Sussex, physicians, surgeons, apothecaries, accoucheurs, and general medical practitioners.

Walker, G., and Troke, C., under the style of Walker, Troke & Co., Bath Street, City Road, E.C., wholesale druggists.

THE BANKRUPTCY ACTS, 1883 AND 1890.

RECEIVING ORDERS.

Priestley, John Andrew, Stoke-upon-Trent, chemist and druggist.
Wilkes, William Henry Griffin, Birmingham, surgeon.

ADJUDICATION.

Kelsey, John, Stairfoot, near Barnsley, herbalist and drug-vendor.

Deaths.

COOPER.—On February 1, at 66 Oxford Street, W., Rita Winifred, only daughter of Walter Temple and Jessie Cooper.

CUTLER.—Mr. George Cutler, head of the firm of Cutler Brothers & Co., wholesale druggists, Boston, Mass., died there on January 11, in his 77th year. He was the last survivor of the three brothers who for more than forty years were associated in the business which made their names known and respected throughout the drug-trade of the world. He was born in New Salem, Mass., and at the age of 15 entered the employ of Lowe & Reed, wholesale druggists. The firm of Cutler Brothers & Co. was established in 1826, and George Cutler was admitted as a partner in 1852.

FERGUSON.—On January 8, Mr. John Ferguson, chemist and druggist, Belford. Aged 67.

HART.—On January 19, Mr. George William Hart, chemist and druggist, Hull. Aged 69.

TAMLIN.—On January 19, at Albemarle Place, North Road, Plymouth, Bolina Tamlin. Aged 39. Mrs. Tamlin was eldest daughter of the late Mr. R. M. Bennett, chemist, 14 Union Street.

WALDEN.—On January 26, at King Street, Dukinfield, Mr. Charles Walden. Aged 68 years. Mr. Walden was a well-known herbalist and botanist, and was President of the National Society of Herbalists of Great Britain for six years. In 1892 he was among those who gave evidence before a Select Committee of the House of Commons with respect to the granting of death-certificates by qualified medical botanists. He was a leading Freemason.

MR. BARRY NOBLE, son of Mr. Noble, chemist, of South Shields, is opening a pharmacy in Heaton Hall Road, Newcastle-on-Tyne.

A Pharmaceutical Lord Mayor's Reminiscences.

THE dinner given by the Manchester chemists last week to the Lord Mayor of their city was briefly reported in our Supplement last week, but the Lord Mayor's speech was of such general interest that we think it worth while to give a full report of it. Mr. George S. Woolley, who presided and who proposed the health of the guest of the evening, had pointed out that Alderman Gibson was the first pharmaceutical chemist who had occupied the position of Lord Mayor either in Manchester or in any other city of the kingdom. They had had mayors of other cities and boroughs. Alderman B. Robinson, a chemist, for instance, who sat near him, had been Mayor of Salford, and they had had chemists who had been Mayors of Manchester. He remembered Alderman Goadsby among them, but Alderman Gibson was their first "Lord Mayor," and the Manchester Pharmaceutical Society had determined that they could not let the fact pass without special recognition, and the company present showed that they had accurately gauged the feelings of the pharmacists of the city and neighbourhood. Those who had known Alderman Gibson the longest would have noticed with satisfaction how, during a long period of persevering industry, he had come to be a considerable employer of labour. He had been the means of introducing into Manchester what was practically a new industry. For that he deserved the thanks of his fellow-citizens. Whenever a man did anything to increase the prosperity of the community he deserved well of his fellows. While they were pluming themselves upon their relationship with the Lord Mayor, and while they were basking, as it were, in the sunshine of his glory, they should remember that the Lord Mayor had always devoted a large portion of his time to the promotion of the comfort and welfare of his fellow-citizens. For many years he had taken a leading part in the management of the gasworks; he had supplied them with light. It was an undertaking of considerable magnitude, and anybody who took up the management of it had a great responsibility on his shoulders. When Mr. G. Brooks occupied the position of Chairman of the Gas Committee Alderman Gibson was Vice-Chairman. Alderman Gibson brought common-sense principles to bear upon his work, and success was the result. He had gone in for supplying a good article at a low price. Alderman Gibson had lowered the price of gas, abolished meter-rates, introduced the penny-in-the-slot meter and the erection of gas-stoves in the houses of the ratepayers free of the initial expense. That was not all. It fell upon Alderman Gibson to introduce the electric light to the citizens of Manchester. Manchester was not the first to adopt it, but when it did take it up one of the best installations of the kingdom was secured. That was a record of which any man might be proud.

The Lord Mayor, whose rising was the signal for rounds of cheers, said if there ever was a time when the tongue utterly failed to find words adequate and fitted to express the feelings of the heart, surely it was on such an occasion as that. When he remembered that all who were present had come for the express purpose of paying a compliment to himself, and for the purpose of congratulating him on some supposed dignity he had attained—(A Voice: "Not supposed")—and while he had ringing in his ears the eloquence of the language in which the President had proposed the toast, and the hearty plaudits which it had evoked in return, it would not be expected that he could remain absolutely unmoved; but if he were to attempt to explain to them the feelings with which at that moment he was actuated, if he were to indulge in any sentimentality at all, he should utterly fail to do justice to them or to himself, and so he would go on other lines. It had been said that some men were born great, some achieved greatness, and some had it thrust upon them. He hoped he should be doing no injustice to his ancestors if he said he was not born great—(laughter)—and he should not insult his friends present, especially those who had known him longest, if he said that not one of them in their wildest dreams would charge him with having achieved greatness. (Renewed laughter.) If he had any greatness at all, it must have been thrust upon him. (More laughter.)

He was not there, however, to argue the point; it was enough pride for him if he had been thrust into a position which afforded pleasure and satisfaction to them, and which they had felt, or might feel, that in some way or another shed some light or reflected lustre upon the trade or profession to which he and they had the honour to belong. (Hear, hear.) He saw around him many old and familiar faces that he was gratified to see, and he begged to thank the owners of those faces for the great kindness, consideration, and distinction which they had conferred upon him by coming there at great cost, and in some cases at great inconvenience, in order that they might stamp that red-letter day of his with the seal of their approval. (Applause.) But he was bound to tell those gentlemen who had known him so long and so well that he was not at all the man they used to know. (Laughter.) The badge of office that he was privileged to wear, which he was proud to wear, and which he had the right to wear, possessed within itself important and inherent qualities. It not only entirely eradicated, but entirely annihilated, all the vices that human flesh was heir to. (Laughter and cheers.) It was never permitted to be put upon the shoulders of any man until he had demonstrated beyond the shadow of a doubt that he possessed all the virtues of all the saints, and all the modesty, eloquence, and wisdom of all the philosophers from Socrates, Plato, Aristotle, and Demosthenes, down to Thomas Carlyle and Mr. G. S. Woolley. (Great laughter.) So they saw that he was now a very different man from the one they knew many years ago. They had come there that night to pay a compliment and do honour to the man they used to know, and he hoped they would not be altogether disappointed with the man they found. There was one thing, however, that he had not altered in, and that was in the esteem and gratitude of the mass of his fellow-townsmen with whom he had done business, and for whom he had the highest amount of appreciation, and who had held out to him the right hand of fellowship. He now called those days his struggling days. He was not sure whether they were not his happiest days, made so by the good feeling of those upon whom he used to call when engaged in the drug-trade in the country. He was told by some people that if he travelled now he would find it a very different thing. (Laughter.) Perhaps so, but he was one of those who believed that they often found things what they themselves made them. (Hear, hear.) Of course, a great change had come over the drug-trade, as over every other trade. But who should say it was for the worse? It was over fifty years since he first went into the drug trade, and he thought he had earned some title to say that he knew something about it. What was the social position of the druggist fifty years ago? He then held the same social position as the baker, the grocer, the draper, and the candlestick-maker. (Laughter.) No more, no less; he had no higher status. What were the druggists of to-day? He ventured to say the social status of the chemists of the country had been enormously raised. They enjoyed distinctions and privileges which were not dreamed of fifty years ago. That fifty years ago by scouring the whole of the country they could have gathered together a body of chemists like the assembly he saw before him that night, even had the object been their own interest and not to pay honour to another, was entirely out of the question. The status of the chemist was now only a degree less than that of the learned professions, and for that position he should say thanks were due in the main to the Pharmaceutical Society. He believed that on the whole the thanks of the chemists of the country were fairly, fully, and honourably due to the Pharmaceutical Society of Great Britain. (Hear, hear.) It was said that the chemists of to-day did not make so much money as they used to do. He disputed that statement altogether. There never was a time in the history of this country when the chemists made more money than they did to-day. More money was made and spent in this country than in any other country of the world, and that applied to chemists, who got a very reasonable share of it. Perhaps they were not so careful, economical, and saving as their forefathers, but the simple fact was that they spent a great deal more. They all knew the old adage—they "could not eat their cake and have it"; they spent more money in clothing, lived better, spent more on their children's education than before, lived in better houses, and all had grand pianos. (Laughter.)

And he was afraid they were all tarred with the same brush, and that a good many of them taught their children everything except hard work. Looking at the matter fairly and squarely, he held that the chemists of to-day were better men, had better positions in society, and enjoyed themselves more, were better thought of, and made more money than their forefathers. Of course, they had a right to grumble. As Princess Ida, who had everything, said in the comic opera, it didn't seem things went right if there was nothing to grumble at. (Laughter.) They had the privilege of grumbling, but his opinion was that there was life in the old dog yet, and with ordinary care, industry, and economy he would say, if he had the choice of a business given him to-day, "Give me the drug-trade." (Cheers.) The President, in his opening remarks, had been good enough to speak of the work he had done in the Manchester Corporation. The President had spoken like a book. (Laughter.) How he had obtained his information he did not know. If from ordinary observation, then he must congratulate him on his knowledge of the work done by his fellow-citizens in the Corporation. If others took the same notice that the President had done there would be little cause for grumbling. He (the Lord Mayor) had been in the Corporation sixteen years, and he did not think the citizens were ever better represented than they were to-day. (Hear, hear.) He was proud of being chief magistrate of that great city, and he should not be worthy of the position if he were not proud of it. It would be mere affectation to pretend he was not proud of the position. (Hear, hear.) It was no mean thing to have acquired. He had come into the city poor in circumstances, and comparatively early in life, and ended by being its chief citizen. (Loud cheers.) He was not vain enough to boast that this had been achieved by any transcendental abilities of his own: it had come from a conglomeration of things, guided by the unseen hand of Divine Providence. That gathering had placed the brightest jewel of their affections in his civic crown; it would shed lustre on himself and on his family greater than any that could be bestowed upon him during all the year of his mayoralty. (Loud and long-continued cheers.)

M. Scheurer-Kestner.*

AUGUSTE SCHEURER-KESTNER, the originator of the Dreyfus agitation, has attained to some eminence as a chemist in former years, and at present is one of the leading shareholders and a managing director of the prosperous Société Anonyme des Fabriques de Produits Chimiques de Thann, Alsace (formerly Charles Kestner & Co.). This company has a branch at Mulhouse, also a manufactory in France at Giromagny, Territory of Belfort. M. Scheurer-Kestner is interested in other chemical-manufactories in France. He is reputed to be a man of wealth, and has a town residence in Paris in the fashionable rue Pierre Charron, which at the time of writing is guarded by police.

M. Scheurer-Kestner was born at Thann on February 11, 1833, where his father was a manufacturer of cotton goods. Twenty years later he came to Paris to study chemistry. His Republican tendencies were at that time so pronounced that he was sentenced to four months' imprisonment and a fine of 2,000f., besides being subjected for a short period to police supervision, under the then Royalist Government, as a means of checking his youthful ardour. That punishment is now regarded in the Senator's family as one of the most distinguished honours he has received. M. Scheurer-Kestner has had experience as a journalist and author. During the sixties he contributed to the *Bulletin* of the Paris Chemical Society, and about the same time published a book, entitled "Elementary Principles of the Chemical Theory of Types applied to Organic Combinations." He has also written for various publications, and formerly addressed occasional papers on scientific subjects to the Paris Academy of Sciences. For some time (since the war) he edited the well-known Paris newspaper *La République Française*. He took up the entire management of the chemical-manufactory belonging to M. Kestner, his father-in-law, on the death of

the latter in 1870, having been connected with him in business for some years previously. He has devoted a good deal of attention to bettering the lot of workpeople, and in 1865 assisted to establish a Co-operative Supply Association for their use. He took an active part in the war of 1870-71, and was appointed director of the pyrotechnic establishment at Cette by the Bordeaux Delegation. Since that time he has taken a somewhat prominent, though unpretentious, part in French politics. He is known as the last French Deputy of Alsace, having been a Deputy in the French Parliament for that province when it was ceded to Germany after the war. A few years ago M. Scheurer-Kestner was appointed Vice-President of the Senate, which is considered to be one of the five or six most important offices in the French Republic.

Such was his career until last November. To the general French public he was scarcely known, except as an estimable politician, looked up to in parliamentary circles as a



discreet and intelligent Protestant, whose sound common sense had been matured by age and experience. It was necessary to mix with the Alsatian colony in Paris to learn how cordial was the regard in which he was held by those who knew him best. Under these circumstances public surprise was all the greater when this discreet and retiring man came prominently forward to declare his conviction of the innocence of the convict of the *Ile du Diable*. Probably no one regrets the amazing vigour of the controversy thus raised more than M. Scheurer-Kestner himself, though he remains strong in the opinion he has declared. When M. Scheurer-Kestner appeared as a witness at the Esterhazy court-martial, it was thought he would bring some strong evidence of the convict's innocence, but he failed to do so. He appeared before the Court with a modest and sorrowful demeanour, and the President asked him to state his name and profession. "Scheurer-Kestner, dealer in chemicals," was the answer, and the President rejoined, "Kindly take a seat, Monsieur le Vice-Président." The majority of his fellow-senators are evidently not in sympathy with his action, for when he came forward recently for re-election as Vice-President he was black-balled, and it looks as though his public career may have ended in something like disgrace. But who can tell? Before the summer M. Scheurer-Kestner may be the most popular hero in France.

ACCORDING to Dr. Roux, of the Pasteur Institute, Paris the bacillus of bubonic plague has little power of resistance and all antiseptics kill it.

* This sketch was crowded out of the series of Men of Mark in our Winter number.

Trade Notes.

MESSRS. MAYS & MACKAY, wholesale druggists, Reading, have removed from Valpy Street to larger premises which they have purchased at 5 and 6 Gun Street.

"HYGEIA" is the name of a dreamy waltz which is given free to purchasers of L.V. Pills. We like the strains of the waltz, and as the music-sheet (which is elegantly got up) is to be distributed through chemists, our subscribers should see to the conditions on which they may get copies.

MESSRS. DOBBIE & Co, Rothesay, N.B., publish a handsome catalogue of flower and garden seeds, which also includes bedding-out plants, &c. To chemists who add this branch of profitable extras to their business in the spring, the catalogue should be valuable, while all who love gardening should certainly write for a copy of it. Messrs. Dobbie are noted for their pansies and roses.

MESSRS. LYNCH & Co.'s CATALOGUE grows in size and usefulness. It is now a finely-illustrated price-list on some 500 quarto pages, divided in six separate sections, namely, druggists' sundries, surgical instruments, Benbow's soaps, perfumes and toilet preparations, confectionery, shop fittings, and proprietary articles. The illustrations are exceedingly well brought out, and every item in Parts 1 and 2 being numbered, ordering is reduced to its greatest simplicity.

"POTTER'S PENNY POPULAR HERBAL AND FAMILY MEDICAL GUIDE," issued by Messrs. Potter & Clarke, of Artillery Lane, E., is an excellently-compiled pamphlet on the subject. It could not be distributed without considerably promoting trade in herbal remedies, and we should not wonder if a more general resort to the medicines named might in some cases be good for the purchaser. The book contains a number of illustrations of herbs and some anatomical diagrams. We notice that Messrs. Potter & Clarke are also offering a well-designed show-card of their *Datura Asthma Cure*. It represents a pretty healthy-looking girl using it.

MESSRS. W. B. FORDHAM & SONS, York Road, King's Cross, N., are agents for the Indiarubber Comb Company's (New York) dressing-combs. A sample they have sent us seems to amply justify its name of "Unbreakable," after some rough usage we have given it. Any comb found de-



fective, or which breaks by ordinary usage within six months after purchase, will be exchanged, a guarantee to that effect being wrapped round each comb. These combs are made in many patterns.

WE reported last week that Messrs. Fletcher, Fletcher & Co., had succeeded in getting the French Government to sanction the importation of their "Vibrona" into France. In a conversation with Mr. Fletcher some questions were put as to the steps which have to be taken to secure that benefit. In the case of the speciality referred to it appears that what was done was first to forward samples of the product to the Paris Municipal Laboratory for analysis. A petition had also to be addressed to the Minister of Commerce, giving full particulars as to the composition and price of the article. It is scarcely necessary to add that no "secret" compounds are admitted into the country. Questioned to whether the firm expected much demand from France, Mr. Fletcher produced a letter, which curiously had been received that morning. It came from a lady at Biarritz, and was dated January 27, 1898. She said: "I am very anxious to get some of your Vibrona wine, which I have found of the greatest use; but it cannot be obtained here, and I am told there would be much difficulty with the French Customs in getting it through. Have you an agent in Paris? I have found Vibrona the most wonderful tonic, when recovering from illness." Her difficulty, at all events, has been removed.

Personalities.

At the School Board election at Newcastle-on-Tyne Mr. N. H. Martin, pharmaceutical chemist, and Mr. T. S. Alder, chemist and druggist, were unsuccessful candidates.

DR. JOKICHI TAKAMINE, the inventor of Taka Diastase, and Henry George, jun., have recently married two sisters—American girls, of course.

MR. GEO. WARD, F.I.C., F.C.S., of Messrs. Hirst, Brooke & Hirst, was, at the annual meeting on January 27, elected President of the Leeds Institute of Science, Art, and Literature, an institution with which he has been connected in various ways for nearly fifty years.

WE published a paragraph a fortnight ago stating that Mr. T. H. W. Idris had resolved to contest South Islington as a Progressive candidate for the London County Council, leaving his comparatively safe seat at North St. Pancras for the purpose. The information was sent to us by a usually well-informed correspondent resident in Islington; but we find it is incorrect, and that (as has happened before) Mr. T. Howell Williams Idris has been mistaken for Mr. Howell J. Williams, who is a candidate for South Islington. Mr. Idris is a candidate for North St. Pancras.

DR. F. CLOWES, chief chemist to the London County Council, was last week, on the occasion of his leaving Nottingham University College, presented with a silver kettle for the tea-table and silver candlesticks. Dr. Clowes, in acknowledging the presentation, said that after nearly twenty-five years spent in active tuition he was not sorry to assume advisory and consultative duties only. In his new sphere he had the direction of over 40 assistants, most of them qualified chemists, and hoped to be able to find employment for some of those who had received their training at the Nottingham College. Dr. Clowes then gave a brief account of the work done by the County Council chemists in their several laboratories, and finished by saying that although his new duties were so engrossing, his memory would frequently transport him to the happy period spent at Nottingham.

Business Changes.

MR. WALTER THORP, of the Paradox Pharmacy, 97 York-shire Street, Oldham, has sold his "Rat Charmer" to Daisy (Limited), of Leeds.

MR. R. LESLIE, pharmaceutical chemist, has purchased the business he has managed for the past two years from Dr. J. Innes, at 627 George Street, Aberdeen.

MR. WILLIAM MURRAY, lately the manager, has taken over the business of Mr. James Hinds, pharmaceutical chemist, 127 Gosford Street, Coventry.

MR. GEORGE LEE, chemist and druggist, High Cross Pharmacy, Barnstaple, has acquired the recipes of the late Rev. John Russell for the preparations for horses and dogs.

MR. JAMES LEES has disposed of his business at 88 High Street, Lees, near Oldham, to Mr. Thomas Wade. Mr. Lees will now have one address only, namely, 110 Lees Road, Oldham.

MR. W. H. DIXON, of High Street, East Grinstead, opened a branch establishment at 102 and 104 London Road, East Grinstead, on Saturday evening, January 22, in rather a novel manner. The town band was engaged to play from 6 to 10 P.M., and a special programme was circulated. Large crowds of people assembled in the neighbourhood, and they were not only interested in the music, but also in the stock arranged in the windows. One had been set apart for cigars and tobacco of every conceivable kind; the second was well stocked with scents and soaps; and the third was devoted to the exhibition of an immense quantity of large and small sponges, some of them of a very costly character. The shop was formerly in the occupation of Mr. E. Tully, but has been refitted in first-class style by Messrs. Bowling & Govier, and will be under the management of Mr. E. Field.



Notice to Retail Buyers.

It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk.

In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable even for manufacturing purposes.

Further points which should be borne in mind are that the distributor generally has to bear the bulk of the freight-charges on the goods on their way from the producer to the retailer, and that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., February 3.

BUSINESS is not at all brisk between merchants and wholesalers.

The Drug-sales held to-day were not interesting, nor lively. Higher prices for benzoin and ipecacuanha were the most notable features in it. There has been a tendency to talk up ergot, but it has failed. The following are the principal changes of the week:—

Higher	Higher—(continued.)
Benzoin	Orange-peel
Calumba	Orris-root
Caraway	Pepper
Cardamoms	Sal ammoniac
ascarilla	Tonkin-beans (Para)
Cloves	
Guaiacum	Lower
Ipecacuanha	Menthol
Oil, cloves	Oil, sandalwood, E.I.
Oil, lavender spike	Shellac
Oil, limes	Tamarinds
Oil, olive	Tragacanth

We print the statistics of drugs stored in London in January, from which it will be seen that rhubarb is in large supply, Amsterdam advices show that the stock of cinchona there on January 31 was unexpectedly high, and this is tending to weaken quinine.

In Heavy Chemicals a moderate business is passing. Bleaching-powder and caustic potash have a slightly firmer tendency. Recovered sulphur is scarce. Sal ammoniac has advanced, while sulphate of copper keeps firm. Benzols unchanged. Carbolic acid is in slightly better demand, and cream of tartar is steady.

CABLEGRAMS.

OUR NEW YORK correspondent cables that sarsaparilla of all grades is very strong, and in small supply. Good livery Curaçao aloes is also scarce at 7c. per lb. Balsam Peru is lower; \$1.90 per lb. would buy to-day. Spermaceti has also an easier tendency at 27½c. per lb. To-day's price for Cascara sagrada is 4½d. per lb. c.i.f. terms for new bark. Hydrastis canadensis is offered at 40c., and Mandrake-root (podophyllum) at 6c. to 6½c. per lb.

FROM HAMBURG we hear by cable that Cevadilla seed has been reduced, and can now be had at 70c. per 100 kilos. Japan wax is firmer at 68m. per 100 kilos. Camphor is also firmer at 245m. per 100 kilos.

The first meeting of the Bandoeng Agricultural Society, as the Association of Java cinchona planters is called, was held on December 26. It was reported that thirty members, representing seventeen plantations, had joined the Society. Mr. C. van Winning, who has taken a leading part in forming the Society, was elected President, and Mr. P. van Leersum,

director of the Government Cinchona Plantations, was elected Vice-President. It was agreed to hold at least four meetings of the Society every year—viz., in February, May, August, and November. The meeting also discussed a proposal to establish a co-operative society of cinchona-bark producers with the object of founding in Java a sufficient number of quinine factories to work all the bark produced in the island into alkaloid, the factories to be under the control of the planters. On the suggestion of the President further consideration of the matter was deferred until the next meeting, when the proposals will be submitted in writing.

ACACIA.—Good pale picked Trieste gum is offered at 5l. 10s. to 11l. 5s. per cwt. c.i.f. terms, according to quality. Grains, 5l. 7s. 6d. per cwt.

ACETANILIDE.—The price has been raised to 1s. 1d. per lb.

ACID (CITRIC).—Is firm on the spot at 1s. 0¼d. to 1s. 0½d. per lb.

ALOES (CAPE).—Twelve cases were offered, but only 2 were sold, at 18s. per cwt., the surface being somewhat scorched.

ALOES (CURACOA) was in moderate supply—viz., 133 cases and boxes, and 20 gourds—of which 70 boxes sold, medium liver at 24s. per cwt., and dull at 14s. 6d. to 15s. For bright liver, in tins, 30s. to 32s. is wanted, and 25s. for indifferent stuff in gourds.

AMMONIA.—The price of *Sal Ammoniac* has been advanced 2s. per cwt. this week, best quality crystals being now quoted at 35s., second quality at 33s. per cwt.

AMMONIACUM.—One parcel only of 8 cases offered, but was retired at 65s. nominally for small to bold tear; for blocky gum 35s. per cwt. is wanted.

ARECA-NUTS.—One parcel of 10 bags, good to bold seeds, was bought in at 18s., a bid of 17s. 6d. per cwt. being refused.

ARGOL (CAPE).—Good grey sold at 50s., and dark powdery at 32s. and 35s. per cwt.

ASAFETIDA.—Since the last drug-sales this gum-resin has been moving slowly, the lower grades chiefly being sought, and these have fetched 32s. 6d. per cwt. for common brown stoney, to 52s. per cwt. for fair medium. None was put up to auction this week.

BALSAM, CANADA.—Fine bright quality is offered at 1s. per lb. c.i.f. terms. The American market is said to be practically bare of stock.

BALSAM COPAIBA.—Sales in Liverpool have been made this week at 1s. 11d. to 2s. 1d. per lb. for Maranh, according to quality.

BALSAM, TOLU.—Recent arrivals are offered from New York at from 1s. 10d. to 2s. per lb. c.i.f. terms, in 50 lb. tins and 10 lb. tins, in cases, respectively.

BENZOIN.—Several cases of low brown Palembang gum sold at 34s. per cwt. Some Penang was offered, chiefly false-packed, but did not sell at 60s., the price named. Siam gum was in fair supply, and 70 cases were sold; fine small to bold, of loose tear, at 12l. 2s. 6d.; ditto, part blocky, 10l. 17s. 6d. Small tears, slightly blocky, 8l. 10s.; drossy, partly blocky, 5l. 5s. to 5l. 10s.; blocky, 3l. 10s.; and dull grey siftings in block, at 48s. per cwt. Sumatra gum was in good supply, recent arrivals being put forward, and there was very brisk bidding throughout, although none of the best almondy benzoin is obtainable. The finest offered showed a good sprinkling of white almonds, and sold at 11l.; seconds, at from 7l. 2s. 6d. to 9l. 15s. per cwt.; and false-packed brownish, at 5l. 12s. 6d. to 7l. We ought to add that most of the Sumatra benzoin sold at these prices was more or less damaged with paraffin oil.

BUCHU-LEAVES were in poor supply, but more than enough for the buyers, who only cleared three out of 24 bales, paying 5½d. per lb. for good green round leaf. Pale green can be bought at 4d.

CAFFEINE still remains at the last quotation, 13s. 6d. per lb., and good business has been done in it.

CALUMBA has gone higher to-day, 6 cases of nice bright-washed, of medium size, selling at 60s. per cwt.

CAMPHOR (CRUDE).—Stocks in Hong Kong are comparatively light, being 6,000 cases as against 13,000 cases a year ago. During the month of December 134 cases only were exported to the U.K. The London market is very quiet. Chinese camphor is firm and quotations of 89s. 6d. per cwt., c.i.f. terms, have been cabled this week for February-March shipment. Japan is offered at 94s. per cwt., c.i.f. terms.

CARDAMOMS were in good supply, and sold well, at from 1d. to 3d. dearer for the finer qualities—viz., Malabar, 66 cases, of which 10 sold; Mysore, 291 cases, and 264 sold; long Ceylons, 6 (all sold); and about 20 bags of seeds, most of which sold. The following prices were realised:—Fair brown Ceylon-Malabar, 2s. 8d.; small to medium dull is held for 3s. 4d. per lb. Of Ceylon-Mysore a few packages only of fine large white fruit were offered, and easily realised 4s. to 4s. 3d. per lb. Good medium to bold sold at 3s. to 3s. 9d.; small white at 2s. 9d. to 2s. 11d.; medium bold, slightly brown, 3s. 4d.; split, partly dark, 2s. 3d.; white, partly split, up to 3s. 1d. Long Ceylons of fair quality sold at 2s. 8d. to 2s. 9d., and the ruling price for seeds was 3s. 3d., although one broker sold a large lot for 3s. 2d. per lb. In 1897 the exports from Ceylon were 515,000 lbs., an increase of 63,000 lbs. over those of 1896. Of this quantity 287,958 lbs. were sent to the United Kingdom, and 208,339 lbs. to India. As the year closed, the market declined in Ceylon; but, taken altogether, exceptionally good prices were realised during 1897.

CASCARA SAGRADA.—A heavy sale of a special lot was made early in the week at 18l. per ton, but there is no more of the lot, and the price is much below the ruling value—21s. per cwt. The New York quotations are 1896 crop 18s. 6d.; 1895 20s. 3d., 1894 21s. and 1893 22s. per cwt. "c.i.f.," with 6d. to 1s. off for ton lots. The recent rise in values was due to reports of short supply from the Pacific Coast. During 1896 the collection of bark was excessive, and prices ruled low accordingly. So last year the labourers turned their attention to something else, and the short output with active demand has made the views of holders firmer. In auction a bid of 19s. 6d. per cwt. was refused for a good thin bark.

CASCARILLA.—Nothing was sold in auction, although there is a parcel of fine clean bark, in longish quills, obtainable at 34s. Two bales of full-odoured bark are held at 45s. 6d. per cwt. New-crop bark is in small supply in New York, and is offered at 4½d. per lb., c.i.f. terms.

CHIRETTA.—Four bales of rather dull quality sold at 1½d. per lb. at auction.

CINCHONA.—The Ceylon exports for 1897 have shrunk to about one-half of what they were in 1896, the figures being 650,000 lbs. and 1,309,560 lbs. respectively. A temporary increase is looked for in 1898, as London prices are about 100 per cent. higher than what they were about this time in 1895. The Java shipments for January have created some surprise, and a feeling that the planters' syndicate will not be able to maintain prices. The total shipments from Java to Europe in January amounted to 956,000 half-kilos. (a million pounds). The unsold stock of Java bark in first hands in Amsterdam on January 31 was 2,322 packages Government cultivated bark, and 10,429 packages from private planters, compared with 2,260 and 9,451 packages on the last day of December. The total arrivals in January were 4,338 packages and the deliveries 3,248 packages. We print a special note on p. 249 in regard to the Java planters' association. Our Amsterdam correspondent, writing on February 2, gives the following statement of the shipments:—

	January	December
	Ams. lbs.	Ams. lbs.
1898 ...	956,000	—
1897 ...	390,000	731,000
1896 ...	970,000	890,000
1895 ...	657,000	634,000
1894 ...	893,000	531,000
1893 ...	900,000	391,000

The Amsterdam auction of February 24 will consist of 6,001 bales manufacturers' bark, and 297 bales and 249 cases druggists' bark. In to-day's London auctions the offers of South American were:—Carthagena: Good bright flat was bought in at 7d. per lb., 6d. being the limit.

Eight bales of seriously damaged and damp bark sold at 1d. per lb. Of 38 bales brown Guayaquil, 10 sold at 8d. to 9d. for fine mossy quill, thin quill brought 5d., and damages 4½d. per lb. South American red bark, in fine large bright pieces, sold at 3s. 6d.; less bold chips and shavings at 2s. rough quill at 1s. 6d., and damages at 6d. per lb.

CIVET.—Only 9 horns came to the hammer, which had to fall without a bid. The buying-in prices were 14s. per oz. for fair, and 19s. for good soft.

CLOVES.—There was an excited market for Zanzibar cloves last Friday morning on the publication of the Vice-Consul's Report for the Island of Pemba (to which we refer in an editorial), and the price rapidly advanced ½d. per lb., 4d. being paid for March-May delivery. The price continued to advance until Tuesday morning, when 4½d. was realised for March-May, but in the evening there was a sharp set-back, and since then the market has fluctuated, closing steadily at 4½d. for March-May and 4½d. for June-August.

COCA LEAVES.—Thirty-nine bales of Truxillo leaf, partly broken and dullish, were not bid for; 8d. per lb. would buy. A parcel of large Ceylon leaf was also bought in.

COCAINE.—Is firm and in fair demand at from 10s. to 10s. 6d. per oz. for 100-oz. lots, according to brand; second-hand holders would, however, accept 9s. 9d. per oz.

COLOCYNTH.—For partly broken pale apple 1s. 1d. to 1s. 2d. per lb. is wanted. Seedy and broken damages sold at 4½d.

CUBEBS.—There were no buyers to-day, although 72 bags were offered. Seven bags of dark and plump berries were said to be purchasable at 45s.

CUS CUS would not sell to-day. A hundred bags were offered, 95 of them very sandy and thin, was bought in at 5s. per cwt. Less would buy.

CUTTLE-FISH BONE is not at all in demand, and 38 cases had to be taken out. The use of the article is on the wane.

DAMIANA.—Reports from New York intimate a large crop of new leaf, but as the old stock is exhausted higher prices are asked for the new arrivals.

DRAGON'S-BLOOD.—The offerings were small—7 cases—and none sold, 5l. 15s. being mentioned as the price for fair bright in lump.

ERGOT.—No fewer than six brokers brought forward ergot to-day, there being an idea abroad that the price of the drug is going up; but there are no buyers. The limit for hard and medium-sized Russian is 9d., and the same was mentioned as the price of some old and small Spanish, not quite sound.

GINGER.—The crop of Japan will be about one-third of what it was last year, and higher prices are looked for.

GUAIACUM.—No really first-class resin was offered this week, and there was little sold. Fair medium but dull fetched 11d. (a good price), and low blocky black 2½d. per lb.

GUM SANDARAC.—Eleven casks of nice clean, almost colourless, tears are held from to-day's sale for 65s. per cwt., nominal.

HONEY in poor supply. Some dull, partly crystallised Australian can be bought for 19s. per cwt. Ten cases of Honolulu (a nice clean honey) sold at 24s.; Italian crystallised, good white, is held at 40s., Californian at 30s.; and good bright New Zealand for 28s. Some rather dull of the last-named sold at 20s.

IODINE.—As yet no decision has been arrived at with the independent maker who finds his holdings a burden: so that there is nothing to report on that score. There was a considerable falling-off in the exportation of iodine from Chili in 1897, the quantity for the first six months of the year being 103,961 kilos. (value 164,605l.) as compared with 114,639 kilos. (value 181,512l.), in the first half of 1896.

IPECACUANHA.—The market is firm, and 3d. per lb. above last sale rates was paid to-day for Rio root, which cannot be bought now for less than 8s., and that not of the best quality. Thirty-seven bales of this kind were offered, and 5 sold at 7s. 10d. for second-class damaged, and 8s. for firsts. The parcel of fine picked root shown at the last sale was again

shown, but the broker is not disposed to sell until he gets 10s. for it. The general opinion is that 9s. per lb. for unpicked root will be reached ere long. Cartagena is in short supply; for fine picked root free from dust 6s. 6d. to 7s. is asked.

JALAP.—Ordinary to good heavy Vera Cruz root is offered at 6d. to 6½d. per lb., c.i.f. terms.

JUNIPER-BERRIES.—Good sifted berries are offered at 9s. 9d. to 10s. per cwt., c.i.f. terms.

KAMALA.—No sales were made to-day. 6d. is wanted for dull light, and 1s. 2d. per lb. for bright red in packets.

KOLA.—Two bags of good bright West Indian sold at 4½d. per lb., and clean bright African is held for 3d.

LIME JUICE.—Two sales were effected of unworked at 9¾d. and 10d. per gallon.

LIQUORICE-ROOT.—Ten bales of bold decorticated Russian, which have been up before, again retired from auction at the nominal figure of 35s. per cwt.

MASTICH is quiet, at 2s. per lb. for good bright tear.

MENTHOL.—Easier. There are now offers in the market at 6s. 6d. to 6s. 9d., c.i.f. terms, for March shipment. The London market is very quiet, and without business.

MUSK.—No business was done to-day, but one broker mentioned that he would take 52s. 6d. per oz. for pile 1, old-fashioned small to bold well trimmed, but damp pod, and 27s. for pile 3. One lot of Tonkin grain is held for 12s. 6d. per oz.

MYRRH.—In moderate supply, but practically without demand, the only sales being of low grain at 15s. per cwt., subject, and dark blocky at 10s. Good clean Aden picked, medium to bold tears, of fair aroma, is held at from 60s. to 75s. per cwt.

OIL, ANISE.—In consequence of the poor crop, and advance in price of the Russian seed, somewhat higher figures have been asked for this oil lately. The 1897 seed, however, is of a good green colour, but a small seed; the yield of essential oil is better in quality than last season.

OIL CAMPHOR.—Some pretty Japanese refined water-white could not find a purchaser at 30s. per cwt.; and 13 cases of brown still-residue oil had the same fate, and a higher price—viz., 4½d. per lb.

OIL, CAJUPUT.—The continental market is bare, and a strong inquiry prevails in Amsterdam. Nevertheless, in London auctions to-day there was no bid for ten cases of a fine bright green oil, and it was bought in at 4s. 3d. per bottle.

OIL, CARDAMOMS.—Slightly dearer, having been in sympathy with the recent rise in the seed.

OIL, CASSIA.—Advices from Hong Kong show that most grades are firmly held, offerings being confined to 65 to per cent. oil. The stock there is estimated at 150 piculs.

OIL, CASTOR.—Of 149 cases offered in auction, none sold. The prices mentioned in buying in were 3½d. per lb. for bright pale; 3½d. ditto unworked; and 2½d. for dull thirds. French and Belgian of first pressing is offered at 31s., and second at 30s. per cwt. Best medicinal Italian oil is quoted at 35s. to 35s. 6d., and seconds at 34s. per cwt. c.i.f. terms.

OIL, CINNAMON.—No sales effected in auction. Prices ranged from 4½d. to 1s. per oz., according to the notion of the broker, as some of the best was priced cheapest. Ceylon shipments during 1897 increased by 49,479 oz., the total being 181,536 oz. Of this quantity the U.K. received 119,935 oz., and U.S.A. 32,000 oz.

OIL, CITRONELLA.—A broker reported that 2 cases of good oil had been sold before auction at 1s. 2¾d. per lb. Ceylon exports for 1897 were 1,182,867 lbs., being an increase of 50,726 lbs. on the previous year; 602,435 lbs were shipped to the U.K., and 456,954 to America. For January-March shipment, 1s. 1½d., c.i.f. terms, has been accepted.

OIL, CLOVE.—The English distillers have raised their price from 2s. 4d. to 2s. 10d. per lb. in consequence of the advance in cloves.

OIL, COD-LIVER.—The London market is lifeless, and no movement is looked for until the new oil is to hand. The

stock of old oil in London is very heavy. From Bergen advices, dated January 29, we learn that stormy weather has prevailed during the week, which has greatly interfered with the fishing. At this time last year about 600,000 fish were said to have been caught, equivalent to 700 barrels of oil. There is no business to report, and quotations for the time being are nominal. The exports from Bergen to date have been 562 barrels, against 277 barrels at the corresponding period of 1897. Nineteen casks of a bright pale oil offered in auction could not find a buyer at 55s. per cask.

OIL, EUCALYPTUS.—Some old and odorous globulus sold, "without reserve," at 9d. and 10½d. per lb. The following were also offered and bought in:—"Platypus," 2s. 3d. per lb.; South Australian, 1s. 1d.; Portuguese, at 2s.; and Tasmanian, peppermint-scented, 2s.

OIL, GINGERGRASS, or Bombay Rosa oil was bought in at 3d. per oz.

OIL, LEMONGRASS.—Fifteen cases of dull were bought in at 1s., nominally, no one offering to buy. The market is uncertain, and the demand not pressing. In reference to the rumour circulated last week that about 500 cases of lemongrass or citronella oil had been destroyed by fire on board the *Clan Mackinnon* in the Suez Canal, we have ascertained that the fire was confined to fibres and hides, and did not reach the oil-consignment.

OIL, LIMES.—The bidding for 3 cases of pale, slightly terebinthinate oil was brisk, and it sold at the good price of 3s. 5d. per lb., while a finer parcel, called "Otto," fetched 4s. 9d. per lb.

OIL, OLIVE.—New crop Italian is extremely firm. Best Lucca and "Cream" oils are offered at 69½; "extra sublime," 60½; "sublime" at 56½, and superfine at 51½ per tun of 1,045 kilos, c.i.f. London. The crop in Italy is said to be much below the average in quality this year, and the higher prices are well maintained.

OIL, ORANGE.—Half-a-dozen bottles of West Indian part of it sour, sold for 8s. 2d. per lb. in auction.

OIL, PEPPERMINT.—Sales have been made this week of American H.G.H. at 5s. 4d. to 5s. 5d. per lb., c.i.f. terms, which would appear to show a lower market. On the spot 5s. 6d. per lb. is asked. Some H.G.H. was offered in auction to-day, and ordinary oil is offered at 3s. 9d. to 4s. per lb., c.i.f. terms. Mail advances from New York dated January 10 state that growers expect an advance in the near future, and if not before April they will put down a small crop of the herb. Japanese: There is no c.i.f. quotation at the moment, and no shipments of last year's crop are coming forward. This would indicate a small crop. At the sale to-day 5s. 4d. per lb. was bid and refused for 10 cases HGH.

OIL, PIMENTO.—A single bottle, which had a marked odour of limes, and little of pimento, sold for 8s. per lb.

OIL, SANDALWOOD.—For one pot very common and dark East Indian oil no bid was made at auction.

OILS (SICILIAN).—*Oil of sweet orange* is firm at from 7s. 6d. to 8s. 6d. per lb. f.o.b. terms. *Oil of lemon* is inclined to have a lower tendency; we hear of quotations this week at from 2s. 9d. to 3s. 3d. per lb. f.o.b. Messina.

OIL, SPIKE LAVENDER.—We hear that absolutely pure oil is not obtainable on the spot for much less than 4s. 9d. per lb., but we have a quotation of 3s. 6d., "c.i.f." terms, and several much lower for not guaranteed oil, thus showing the importance of inquiry into purity when low prices are quoted.

OIL, STAR-ANISE.—The London market is unchanged, at from 7s. 3d. to 7s. 6d. per lb. on the spot. Lower prices may be looked for unless speculators continue their operations. Mail advices from Hong-Kong dated December 30 report that the market closed firm, with sales of about 40 piculs since December 16. The spot price is nominally 7s. 3d. to 7s. 6d. per lb.

OIL OF TURPENTINE is firm on the spot at 24s. 3d. to 24s. 4½d. per cwt. for American. The stock in London on January 31 was 22,651 barrels, against 30,706 barrels in 1897.

OLIBANUM.—Small to medium white ambery tears were bought in at auction at 55s. per cwt.; good free siftings at 14s. per cwt.

OPIMUM.—The London market is very firm in all grades. Finest Persian is quoted at 10s. 3d. to 10s. 6d. nominally, ordinary to good at 9s. 3d. to 10s. per lb. Druggists' Turkey opium is held for 9s. to 9s. 6d. per lb. Our Smyrna correspondent writes that the sales for the week ending January 22 have been insignificant, amounting to 12 cases only, including 5 cases Adette talequale, at the parity of 7s. 9d. to 7s. 10d. per lb., f.o.b. Smyrna; 3 cases inspected Karahissar at 8s. 2d., and 4 cases Karahissar current talequale at 7s. 11d. to 8s. per lb., all for exportation. The stocks in Smyrna are accumulating, the estimate being 2,900 cases against 1,850 at the same period of last year. Notwithstanding this, opium is very firmly held, and holders are not anxious to sell unless at the above prices. The market at Constantinople is also firm, though the sales for the week amount to 4 cases only at high prices. The arrivals at Smyrna up to date are 3,220 cases, against 2,114 at the corresponding time of last year.

ORANGE PEEL.—Some bright Maltese strips sold at 1s. per lb.; medium pale and thin, 7d. to 10d., and dark peel burnt, offered "without reserve" at 2½d. to 2¾d. per lb.

ORRIS.—Clean small Mogador sold at 20s. per cwt., which is higher. Florentine and Verona was also offered, but there were no sales. Fair bold white Florentine is held for 40s. per cwt.

PAPAIN.—A parcel of a brownish extract made in Ceylon is floating in the Lane: 10s. per lb. would buy it.

PATCHOULI-LEAVES.—Some very mouldy leaves were sold at ½d. per lb.

PEPPER.—Dearer, Singapore black at 4½d. per lb. on the spot, and 4¾d. February-April shipment. Singapore white sold in auction at 7¾d. to 8d. for fine, and at 8½d. to 9½d. for fine, bold, fair selling privately at 7¾d., and February-April steamer at 7¾d., Siam on the spot at 7½d., and Penang at 6½d., to arrive April-June steamer at 6½d. per lb. Nothing of interest to report in other spices.

PISTACHIO-NUTS.—A parcel (2 cases) of nice pinky nuts was bought in at 1s. 6d. per lb., the seller wanting 1s. 4d.

QUILLAIA-BARK was offered in sale to-day, but there were no bids for it.

QUINIDINE SULPHATE.—Has been advanced by the German makers from 1s. 3d. to 2s. 3d. per oz. English manufacturers have none to offer.

QUININE.—There is an easier tendency, but not much business doing. A small lot of second-hand German has been sold at 1s. 0½d., but makers have declined 1s. 0¾d. per oz. for a large order. We mention this as showing the feeling. Last week no one would have thought of offering less than 1s. 1d.

RHUBARB.—In short supply and less demand. Of Canton 50 cases were offered, and 2 sold—fair bold round at 1s. 4d. per lb.; and flat, part rough, at 1s. 1d., subject. Of 52 cases High-dried, 12 sold, bold flat at 1s. 1d.; slightly wormy ditto, 10d.; and common rough, 7d. Only 12 cases of Shensi were brought forward, and 5 sold—viz., the best (three-quarter grey fracture) at 2s. 4d. to 2s. 8d., this being good bold root. Rough pickings are valued at 1s.; and good bold ditto at 1s. 3d. The stock in London is exceptionally heavy, so that the high demands are scarcely justified.

SAFFRON.—Holders are firmer in their views this week, and the tendency is higher. For genuine Valencia 36s. per lb. is asked, down to 33s. for commoner. Reports from Valencia state that it is very difficult to buy good quality. From 22s. 6d. to 25s. per lb. is wanted for Alicante.

SALICIN is in good and increasing demand at 10s. 6d. per lb.

SARSAPARILLA.—All that was offered to-day was of new import. Of 14 packages Honduras, five sold at 1s. 4d. per lb. for good bright country damaged, and one rather dull lot at 1s. Four bales bright native red Jamaica brought 11½d., and all the Jamaica offered was sold at 1s. 6d. to 1s. 8d. for good bright. Privately genuine Honduras root is quoted at 1s. 6¾d. per lb. c.i.f. terms. The stock in Honduras is reported to be light.

SENNA.—Of *Tinevelly* about 280 bales were offered, the

quality on the whole being of the poorest description, which would point to the near approach of the end of last season's crop, unless, indeed, the better qualities are being held back. If shipments do fall off now we shall see considerably dearer prices, as so far rather less than 4,000 bales have come in since August 1, which may be called the opening of the present season, as against 5,500 bales during the same period of the previous season. The whole sold at very full prices, from 1¾d. to 2d. for small and very spotty leaves, 2¼d. to 2½d. per lb. for yellowish small, and 3d. per lb. for medium size of poor colour.

SENEGAL.—Of 34 bales offered only 4 sold, and these were without reserve. This was a wiry lot, but good drug, and fetched 1s. per lb. The rest was bought in at 1s. 2d. and 1s. 4d.

SHELLAC.—At the auctions on Tuesday the demand was slow, and holders being firm, very little was sold. Second orange sold at a decline of 1s. to 2s. on the last auction rates, and Button at about 2s. below private rates. Good bright second Orange realised 71s.; fair to good bright red flat, 66s. to 67s.; ordinary weak reddish, 63s. to 64s. Medium red cakey Garnet was held at higher prices at auction, and nothing was sold. Button sold at 73s. to 75s. for good pale cakey free; palish hard block, 70s.; ordinary blocky run, 65s.; ditto thirds, 60s.; and very common, 36s. to 39s. per cwt.

SQUILL.—No buyers in auction: good, hard white from Messina being bought in at 4d. per lb., and lower qualities at 2d. to 3d.

STROPHANTHUS.—Fair Kombé is offered at 3s. 3d. per lb. on the spot. Four bags of partly-broken seeds offered in sale were bought in at 3s. 2d.

ST. IGNATIUS BEANS.—Ninety-three bags offered, and bought in at 4d. per lb.; 2d. would buy.

TAMARINDS.—An old parcel of West Indian fruit, a trifle dry, but sound, sold "without reserve" at prices varying from 4s. 9d. to 5s. The ruling price is 8s. per cwt.

TONCA BEANS.—Five bags black frosted Para sold at 1s. 7d. per lb. Other lots of black Paras were bought in at 9d. to 1s. per lb.

VANILLA was sold in auction before drugs to-day at firm prices—viz., crystallised 7 to 8 inch, 22s. to 23s.; 6½ to 7 inch, 20s. to 21s.; 3½ to 6 inch, 19s. 6d. to 20s.; and others at corresponding rates.

WAX (BEES').—With the exception of Madagascar and Rangoon waxes, the sales to-day were lifeless. Dark, part yellow Australian can be bought at 5l. 17s. 6d. per cwt.; no demand for bleached Calcutta, and 96 packages withdrawn at 6l. to 7l.; good Italian is held for 6l. 15s.; hard grain, fair colour Jamaica sold at 7l. 5s.; Madagascar, medium yellow to dark at 6l. 5s., and wormy at 5l.; close-grain Rangoon of fair colour sold at 5l. 10s.; Spanish is held at 7l. 5s.; and Zanzibar sold at 5l. 12s. 6d. to 5l. 15s. 6d. for dark earthy marked, and 6l. 7s. 6d. for good bright firm grain.

WAX (JAPAN).—Fifty cases of good white were bought in at 37s. per cwt., an offer of 33s. 6d. being refused.

The Liverpool Drug-market.

Our Liverpool correspondent, writing on February 2, reports that the movements in *Castor-oil* for the week have been mostly in arrival parcels, the spot-changes being very small and at 3¼d. to 3½d. as in quantity for good seconds *Calcutta*, and the same price for first-pressure *French*. A parcel of second-pressure *French* has now arrived, and offers at 3¾d. per lb. There is no *Madras* or *Bombay* available. *Chilian spermacti* is now in small supply, and holders are firm at 1s. 3d. *Russian anise* does not appear to move very freely, but holders are obstinate at 20s. per cwt. for good seed. *Potashes* are firm at 19s. 10½d. to 20s. per cwt., while *Pearlshes* have advanced to 37s. 6d. to 40s. per cwt. with some talk of yet higher prices at an early date. *Honeys* are still on the upward move, *Chilian X.* (old crop) selling at 26s. 6d. per cwt.; 25s. per cwt. is asked for Pile III, and 26s. for Pile II *Californian* is in strong hands, although the prices are not quotably changed. *Cream of tartar*, while not actually higher, is giving strong indication of an upward

tendency, and owners show great reluctance to part with their holdings. In *Beeswax*, there has been a continuance of the recent steady demand, and sales of Peruvian are reported at 6*l.* 10*s.*, 6*l.* 15*s.*, 7*l.*, and 7*l.* 10*s.* per cwt., while 18 packages of Gambia were sold at 6*l.* 12*s.* 6*d.* All the recent arrival of new-crop *Chillies* from Sierra Leone—about 100 bags—were sold from the quay on private terms 32*s.* 6*d.* per cwt. having been bid for part and refused. During the week *Kola nuts* have experienced a steady demand, and sales of large parcels African are reported, but all at the low price of 2*d.* for dry. *Olive oil* is in very limited compass, and higher prices are being asked for all grades in consequence of the limited stocks available abroad. In *Gums* the supply of Soudan sorts is dwindling down to small proportions, and only small sales are recorded at previous prices. Medium grades are rather idle, but there is no change in quotations, while the holders of Brazilian maintain late rates. *Turpentine* is firm at 24*s.* 9*d.* cwt. *Irish moss* is increasingly scarce, and common has sold on the market at auction at 10*l.* per ton. *Canaryseed* is in better demand, having recovered slightly from its recent sluggish condition, and sales are being made at 25*s.* 6*d.* to 26*s.* 6*d.* per cwt. A large parcel of *Scammony root* sold at 27*s.* 6*d.* cwt. The recent arrival of Maranham *Balsam copaibia* was sold at auction, and realised up to 2*s.* 1*d.* per lb.

Marks on Imported Goods.

The Customs authorities have prepared a useful memorandum regarding the marking of goods imported for home consumption. The memorandum consists of eight clauses, which we reproduce in abstract:—

1. Foreign goods which do not bear any marks whatever are not required to bear any qualifying statement, such as "Made Abroad," "Made in Germany," &c.

2. Foreign-manufactured goods bearing a name or trade-mark of a manufacturer, &c., in the United Kingdom must have a definite indication of the country of origin. The words "made in" need not be used, except in such a case as "John Smith, Sheffield," when "Made in Germany" or similar wording must be added.

3. If the goods bear the name of a place identical with, or similar to, one in the United Kingdom, the name of the country must be added. Thus Boston, Mass., should have "United States" or "U.S.A." added to it.

4. If a trade-description includes the name of a place, and the goods on which it appears are not the produce of that place or country, the country of production must be stated. For instance, a wine, the produce of Germany, and described as "port" or "sherry," should be described as "German port," &c., or "produced in Germany." [This does not apply to such things as "Brussels carpets" or "Portland cement."]

5. Trade-descriptions in English applied to foreign goods imported for home consumption from non-English-speaking countries are not regarded as indirect indications that the goods are of British or Irish origin, but if in a foreign language not that of the exporting country, the actual origin must be stated—e.g., "Made in Germany."

6. Provides for the marking of watches with English cases and foreign movements.

7. All qualifying statements or indications must be distinct, in equally conspicuous characters with, and in proximity to, the marks they are intended to qualify.

8. Marks on samples or patterns are not required to be accompanied by any qualification if the samples are valueless in themselves and are not complete articles.

BURGLARY AT A WHOLESALE DRUG WAREHOUSE.—On Tuesday night the premises of Messrs. Brook, Parker & Co., wholesale botanic druggists, of Edderthorpe Street, Bradford, were entered by burglars. The staff were working overtime, and at 11.30 P.M. the place was locked up securely. The following morning, however, it was found that a small door in the delivery-yard gates had been forced open; three other doors leading to the offices had also been broken through. The offices had been overhauled, desks opened, and the rooms littered with papers, but, except a quantity of stamps, nothing appeared to be missing, though some tins of extracts and casks of tartaric acid, cream of tartar, and borax had been carried into the delivery-shed. The thieves seem to have decided to try the adjoining premises, occupied as a club. There they got a few shillings' worth of coppers, a drink or two, and a quantity of cigars and tobacco.

London Drug Statistics.

THE following statistics relate to the receipts and deliveries of some of the leading drugs from and into the London public warehouses from December 31, 1897, to January 31, 1898, and to the stocks on January 31 of these two years. Their accuracy cannot be guaranteed.

Article	Stocks		Imported		Delivered	
	1898	1897	1898	1897	1898	1897
Aloes.....cs, &c.	2,771	4,188	224	271	124	124
".....gourds	2,332	1,956	—	—	66	—
Anise, Star.....cs	39	116	—	—	—	8
Arrowroot.....brls	9,579	11,008	1,336	253	920	990
".....bxs & tns	1,379	2,448	46	—	453	75
Balsams.....cks, &c.	345	763	31	8	114	53
Borax.....pkgs	—	10	—	—	—	—
Calambha.....bgs	31	223	8	223	—	11
Camphor.....pkgs	11,457	11,665	134	1,197	115	1,374
Cardamom.....cs, &c.	831	611	604	299	243	132
Cluchona-bark:—						
S. American.....cs	54	56	—	—	—	—
".....bis, &c.	12,679	13,780	587	244	94	288
E. I., Ceylon, (cs	340	306	—	—	27	2
and Java (bls	5,744	7,438	1,714	550	58	1,134
Cochineal.....bgs	2,695	2,574	308	97	142	225
Cocculus Ind....	35	62	—	—	—	10
Cream of tartar cks	5	5	—	—	—	—
Cubebs.....bgs	595	373	220	—	14	97
Dragons' blood ..cs	49	55	17	—	28	4
Galls:—						
China and Jap. cs	548	964	100	1	112	120
Turkey & Persian bgs	3,059	5,197	184	147	336	467
Gums:—						
Acacia.....pkgs	12,902	12,627	1,959	2,227	1,537	2,564
Ammoniacum ..	29	38	—	—	—	1
Anini & copal ..	20,455	18,977	3,403	6,194	3,665	2,159
Asafetida ..	729	473	245	279	6	67
Benzoin	2,118	3,474	90	315	345	244
Damar	3,563	3,869	158	556	407	385
Galbanum ..	—	1	—	—	—	—
Gamboge	288	179	—	—	7	—
Guaiaicum ..	78	45	20	—	8	13
Kino	23	23	3	—	1	5
Kowrie tons (net)	650	1,194	249	381	340	242
Mastich.....pkgs	6	11	10	—	4	3
Myrrh, E.I. ..	545	605	1	59	12	281
Olibanum ..	2,197	1,739	1,409	50	143	717
Sandarach ..	865	488	93	237	73	66
Tragacanth....	2,447	3,584	337	219	613	682
Guttapercha ..tons	1,642	1,587	200	96	135	166
Indiarubber:—						
African, &c. tons	—	—	—	—	—	—
Assam, &c. ..	110	108	97	63	93	42
Madagascar..	30	85	11	29	8	20
Mozambique ..	71	49	63	16	56	23
South American,	117	167	62	82	45	40
Ipecacuanha, Brazil						
bls	189	459	28	51	76	39
Other kinds pkgs	29	29	8	21	5	13
Jalap.....bls	340	321	—	25	2	8
Nux vomica .. pkgs	105	452	—	—	24	71
Oils:—						
Anise.....cs	139	110	—	71	2	6
Cassia.....cs	129	70	10	50	11	—
Castor.....cks	84	356	77	232	54	88
".....cs	463	764	68	19	37	70
Cocoa-nut .. tons	248	402	139	153	52	96
Olive.....cks &c.	641	1,149	125	117	129	129
Palm.....tons	21	9	—	—	—	6
Quinine sulphate lbs	103,830	85,145	8,300	980	764	3,789
Rhubarb.....chts	909	389	20	26	81	98
Safflower.. bls, &c.	215	169	22	21	12	—
Saltpetre tons	842	1,858	484	436	394	450
Sarsaparilla ..bls	256	245	178	60	106	78
Senna	1,436	2,710	393	175	314	490
Shellac:—						
Button.....cs	6,918	6,213	957	1,043	806	749
Garnet.....cs	4,775	4,038	493	386	651	595
Orange.....cs	41,347	31,566	3,404	9,126	2,305	3,073
Turneric:—						
Bengal.....tons	146	515	—	—	21	11
Other kinds....	139	364	1	—	13	17
Vermillion chts, &c.	—	7	—	—	—	—
Wax:—						
(Bees') bls & srns	672	394	219	100	214	116
".....cks & cs	1,723	1,022	297	279	220	229
(Japan)...cs, &c.	393	239	220	87	57	2

CORN OR MAIZE OIL is suggested as a substitute for olive and similar oils for toilet-purposes. It is a tasteless, non-freezable water-white oil.

THERE are, it appears, two grades of oil of bay obtainable in the United States, the quality marked U.S.P. being the cheaper. This is due to the addition of eugenol to the natural product in order to raise the sp. gr. and make the oil conform with pharmacopoeial requirements.



In writing letters for publication correspondents should adopt a concise, but not abbreviated, style. They are requested to write on one side of the paper only. Letters, with or without a nom-de-plume, must be authenticated by the name and address of the writer. Queries should be written on separate pieces of paper, and the regulations printed under the sections to which they apply should be strictly observed.

Manchester Chemists and the Pharmacy Bill.

SIR,—The statement made by Mr. F. Pilkington Sargeant in your last number as to the result of the voting at the recent meeting at Manchester is not in accordance with the facts.

* Five hundred invitations were sent out, and at the meeting the voting was as follows:—Eighteen voted in favour, and nine against the proposed Bill. I had received seven letters from gentlemen who said they were unable to attend, five of whom were against, and two partly against. One letter came into my hands too late to be used. The writer of this is the Local Secretary in a neighbouring town; he wrote strongly in favour, at the same time stating that the Major men he had seen in his town were also in favour of the Bill.

A few gentlemen left the meeting before the vote was taken, but the majority of these were, I believe, supporters of the Bill.

Whether the votes of the absentees are taken into account or not, the majority were in favour of the Bill.

I am, yours faithfully,

Manchester, January 31.

GEO. S. WOOLLEY,
Chairman of the Meeting.

More about that Stamp-duty.

SIR,—I have pointed out that Irish patent-medicine dealers have a distinct grievance against certain makers in London, who charge them for stamped goods and supply unstamped ones. But a still graver injury, not to say insult, is offered to the Irish craft by those houses who absolutely refuse to supply stamped goods to Irish buyers for the same price at which they supply English chemists and, in fact, offer to sell to all comers.

To come to specific instances, I wrote to the proprietors of St. Jacobs oil, requesting a supply of the stamped article at the current price, and was referred to their Dublin agent, Mr. R. Simpson. I sent to Messrs. Scott & Bowne with the like result. Mr. Simpson's statement was that he never kept stamped goods, and his price for the unstamped was the same.

Ingenuous though this scheme may be, I think these gentlemen have overlooked certain legal features of the case. Thus they tell us that the price of a certain article is 4s. 6d., stamp or no stamp. But when selling this same article in England they make with each bottle a solemn protestation that the value is not above 4s., for otherwise it should bear a 1s. stamp. It will be a question for her Majesty's Commissioners of Inland Revenue whether anyone may charge for a stamp and not supply it.

I have no objection to purchase the goods through our friend Mr. R. Simpson. Nothing can be pleasanter or more convenient than dealing with that gentleman; but I object to have him made the *deus ex machina* to squeeze stamp-money out of us when we get no stamps.

You, Sir, in a short note to my last communication, stated very accurately the limitations of the law regarding unstamped medicines for sale in Ireland. Now certain houses lay themselves open to prosecution by committing the technical offence of selling their goods unstamped to wholesale-houses in London, for resale here. I should like to give fair warning to these wholesale-houses, with most of whom I am on friendly business relations, that I intend, if we are not treated with courtesy and justice, to draw the attention of the solicitors of Inland Revenue to those practices so far as they are

carried on by the makers who do not allow the stamp-rebate. It appears to me that to charge stamp-duty, and not give the stamp, is a most serious offence, for it strikes at the most sacred of our institutions, the public purse. I propose, therefore, to have the matter brought before Parliament during the coming Session, unless we are treated equitably.

Yours truly,

J. C. MCWALTER.

19 North Earl Street, Dublin, January 24.

The Pharmacy Bill.

SIR,—Your report of the meeting of registered chemists and pharmaceutical students held in Edinburgh to consider the Pharmacy Acts Amendment Bill may be misleading on one point. You say I supported the motion "with all the official arguments." I hope you will allow me to explain that I was not present at the meeting, nor did I speak in any official capacity, and I have no authority and no right whatever to state official arguments. I attended and took a part in the meeting solely in my private capacity as a pharmaceutical chemist and a member of the Society as deeply interested in all that pertains to the well-being of British pharmacy as any other registered chemist. The statements I made are my own personal convictions, deliberately arrived at after a most careful personal study of the situation extending over a considerable period of years. It would have been fairer to have reported my arguments, if they were worth reporting, and allowed your readers to judge them on their merit, and on that alone.

I am, yours faithfully,

Edinburgh, February 1.

J. RUTHERFORD HILL.

[We had no intention of alluding disrespectfully to Mr. Hill's arguments. Our object was simply to save space. The arguments in favour of the Pharmacy Bill have been reiterated so frequently that it is almost a fraud on our subscribers to keep on printing them. This Bill is an appeal for guineas, and not much besides. We think it a poor thing to go to Parliament with, but have given lavish publicity to every possible argument in its favour, and we do not see what more can be expected by the most devoted adherent of the Pharmaceutical Society.—ED. C. & D.]

MISCELLANEOUS INQUIRIES.

We reply to our subscribers and their employes only; queries must, therefore, be authenticated by the name and address of the subscriber. When more than one query is sent write each on a separate piece of paper. When a sample accompanies a query full particulars regarding the origin and use of the sample must be given, and the name of the querist should be placed on the sample. Queries are not replied to by post.

68/63. *M. & Co.*—Your sample of perfume is a hair-oil perfume. You should have no difficulty in using it up for that purpose.

67/6. *Dens.*—(1) The alteration which takes place in vulcanising rubber consists probably in the formation of a "sulpho-compound," which has not, however, been isolated. (2) An amalgam (an alloy of mercury with some other metal or metals) is generally regarded as a definite chemical compound.

71/51. *A. E. W.*—Yes, dry soap is often used for shampoo-powder, and answers very well.

70/18. *Lac.*—The best Brown Spirit-varnishes do not contain resin, which is the fault with your formula. Your sample is more like the following:—

Sandarac	...	...	...	...	3 lbs.
Pale shellac	...	...	...	...	2 lbs.
Spirit	...	...	...	...	2 gals.
Turpentine	...	...	...	...	2 pints

Dissolve the sandarac and shellac in the spirit, and add the turpentine.

76/4. *Baker.*—A baking-powder made with citric acid would go damp much quicker than one with tartaric acid.

70/9. *W. P.*—Your powder is potass. sulph. c. sulph., the sal polychrest of the Edinburgh Pharmacopœia.

73/14. *Stanton*.—(1) Sixty pounds seems the usual indoor premium for an apprentice. (2) The apprentice pays for his own washing.

78/52. *R. & S.*—Quinine pessaries are made with the hydrochlorate of quinine.

77/39. *Inquirer*.—(1) Two teaspoonfuls of formalin is required for 1 gal. of sauce. (2) Any wholesale druggist can supply formalin.

76/59. *Buensil*.—Fucus vesiculosus (liquid extract) and iodide of potassium are used for reducing obesity; lime-juice and salicylic acid would soon affect the stomach.

75/16. *L. D.*—Would not our "Veterinary Counter-practice" suit you?

79/34. *Sivel*.—Your best plan will be to write to the makers of aerated-water machinery who advertise in THE CHEMIST AND DRUGGIST. They will give you all the particulars of what you require for a small aerated-water factory.

79/52. *Pelagos*.—There is not likely to be any danger from constantly drinking rain-water stored in a galvanised-iron tank.

81/8. *Kong Beng*.—Ess. Vanilla should be made with rectified spirit. The best strength is 9 parts of rectified spirit and 1 part of water. Boil the water and pour it on the vanilla, with 5 gr. pot. carb. to each ounce of the latter.

75/17. *Anti-Frost*.—Your question involves a long series of experiments which we cannot undertake.

75/39. *H. B.*—A formula for liq. copaibæ et cubebæ c. buchu is given in the 1897 DIARY, page 475.

74/74. *Old Trafford*.—"Warner's Pocket Medical Dictionary," obtainable from Newbery's, is what you want.

73/43. *Malesch*.—(1) Collapsible tubes are made by Betts & Co., Wharf Road, City Road, E.C. (2) Liq. Ferromanganesii Peptonati:—

	Parts
Dry peptone	8
Hot water	100

Dissolve, and when cold, add—

Dialysed iron... ..	174
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This should be added gradually, stirring all the time. Neutralise with soda solution, collect the precipitate, wash free from chloride, drain on a calico filter, and mix with—

Simple syrup... ..	200
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promoting solution by the cautious addition of 10-per-cent. solution of soda, and heating. When clear and cold add—

	Parts
Manganese glycosate	50
Rectified spirit	100
Tincture of orange	3
Aromatic tincture	1½
Essence of vanilla	1½
Water to	1,000

Liquids, as well as solids, to be taken by weight.

76/60. *J. B. S.*—(1) Green Oil is made by heating 1 lb. of bruised elder-leaves in 2 lbs. of olive oil till the moisture of the leaves is dissipated. Then press and strain. (2) All the books on synonyms we know of are out of print.

80/26. *Dental*.—In Sharpening Dental Forceps it is not merely a matter of sharpening, but of re-tempering. For this reason we recommend you to send them to people experienced in the matter, such as Maw's.

74/40. *L. A.*—Oil of turpentine is the best solvent for wax; a solution made with this will, perhaps, be what you require for dressing leather. If you wish to keep the leather soft you must add a fish-oil.

75/31. *Nemo*.—Whittaker & Co. publish a 5s. book on "Accumulators," by Sir D. Salomons, which is what you want.

75/35. *Kino*.—(1) Spirit-gum is a solution of resin (4 oz.) in spirit (16 oz.) with a little castor oil (1 oz.) added. It is used for affixing moustaches in theatricals. (2) Liver-mixture:—

Ac. nit. hyd. drl.	5j.
Tr. gent. co.	5v.
Succ. taraxaci	5v.
Tr. capsici	xxxv.
Inf. aurantii ad	5vj.

5ss. ter in die.

75/32. *G. A.*—(1) Starch-gloss.—There are several formulae for this in the last volume; please refer. (2) Perfume-sachets:—

Frangipanni.

Orri-root	4 lbs.
Santalwood	6 oz.
Vetiver	6 oz.
Yvet	60 gr.
Musk	60 gr.
Oil of neroli	1½ dr.
Oil of orange-peel	1½ dr.

Heliotrope.

Orri-root	4 lbs.
Rose-leaves	2 lbs.
Tonka-beans... ..	½ lb.
Vanilla	1 oz.
Oil of almonds	30 drops

66/3. *California*.—(1) Unfermented Fruit-wines.—Black-currant, raspberry, strawberry, and similar wines are made as follows:—From the ripe fruit contained in a twill bag press out the juice, and to every quart of it add 2 quarts of water, with 2 lbs. of sugar and 3 dr. of tartaric acid dissolved in it. Then to each gallon of product add, as a preservative, 10 gr. of salicylic acid and 30 drops of formalin. (2) The directions for making syr. phosph. co. in the 1897 DIARY, page 484, are as simple as any.

76/30. *F. R.*—(1) Glycerinum Ac. Tannici c. Carbol. is generally equal parts of the glyc. tannici and glyc. carbolici. (2) Cod-liver Oil Emulsion.—The acacia emulsion on page 270 of the 1897 DIARY is on the whole the most satisfactory. Irish-moss emulsions are never so white in appearance as acacia ones.

79/58. *Trotter*.—Your Braxy-powder is practically identical with one we examined and reported on November 27, 1897, page 854.

83/64. *Cordial*.—To Clear Peppermint-cordial.—The opacity is due to the essential oil. Mix together 1 part of carbonate of magnesia and 5 parts of fullers' earth, add about an ounce of this to a gallon of the cordial, shake well, and filter through a flannel bag, returning the filtrate until it comes through clear. You will find many useful hints on filtration in this year's DIARY.

76/56. *J. P.*—Furniture-cream:—

Yellow primrose soap	5vj.
Carbonate of potash	5j.
Water	Oilj.

Dissolve by heat.

Resin	5ss.
Yellow wax	5viij.
White wax	5iv.
Spirit of turpentine	5xxx.

Powder the resin and shred the waxes. Dissolve in the turpentine by means of a water-bath, and mix the two solutions.

78/15. *North*.—Your Infants' Food resembles the second formula on page 13, *C. & D.*, January 1, 1898. The last formula in the same article is intended to obviate the process of digestion described just before, and is for a food a chemist would have no difficulty in making with apparatus ordinarily at his command.

73/40. *Eureka*.—(1) The Liver-mixture, *C. & D.*, November 27, 1897, page 854, will perhaps suit you. (2) You cannot give antipyrin indiscriminately for influenza. This affection appearing in so many forms, it is not feasible to have a stock-mixture for it.

74/41. *T. E. W.*—The violet odour of the urine of those who have taken oil of turpentine, oil of juniper, and some other essential oils has long been observed, and we have some recollection of reading a statement regarding the body which has that peculiar odour, but we could not possibly trace it now. You say "you don't see why this odorous principle could be obtained from turps." You should read the article in our issue of January 22, page 117, before you begin to try. There is only an oxygen atom of difference between the principal constituent of turpentine and citral, and if you can manage to tack on that atom to the molecule your fortune is made. Citral may be prepared from oil of lemongrass, by precipitation of the aldehyde with acid sulphite of sodium, collecting the precipitate, and decomposing it in a current of steam, when the citral distils. This process is covered by a patent, we imagine, as are all known methods of getting ionone, and you must also satisfy yourself on these points before you begin.

80/7. *P. S. J.*—Cape Colony would most benefit your health when subject to bronchial asthma. Take out with you as good references as you can, and your Preliminary certificate. The examination at the Cape resembles our Minor in some respects, but is not quite so stiff in the scientific portions.

82/42. *Boston.*—The best way of preventing the Rusting of Labelled Tins is to varnish the tin before applying the labels. When dry roughen the surface with sand-paper, and apply the label, using a good flour-paste. Another plan is to use a hot solution of gelatine, 1 part in 3 parts of acetic acid, as the adhesive agent, this requiring no varnish, and not producing rust—so we are assured by a well-known pharmacist.

82/30. *Spent Lees.*—Filtering Distillery-refuse which violates the Pollution of Rivers Act.—Much depends upon the nature of the refuse, but if you are to use a precipitant depositing-tanks are necessary, otherwise the filtering-beds must be cleaned out frequently, and the labour for that purpose becomes expensive. Alum-cake by itself, and a mixture of slaked lime and copperas are the best precipitants. The proportions used are 1 gr. of the cake to the gallon, and of the others 1 gr. lime and $\frac{1}{2}$ gr. copperas. If the refuse could be collected in a pond, that would suffice for precipitation-purposes, the chemicals being placed where the inflow would wash over them and so save trouble of mixing. After standing all night the refuse could be allowed to flow out through the sluice into a filter-bed. This should be made about 8 feet deep; the first half made of rough stones or flints, then a foot of gravel, and fill up the rest with furnace-cinder or breeze. This makes an effective filter. When it begins to act slowly have a layer of the cinder removed from the top.

77/74. *J. J. J.*—A nitrate of silver hair-dye, such as given in *C. & D.*, December 4, 1897, page 900, will be suitable for eyelashes and eyebrows.

32/74. *W. C. W.* (Atlantic City).—We have a book in the press which will deal with "soluble essences for mineral-water makers."

INFORMATION WANTED.

The Editor will be obliged for replies to the following from any who can furnish the information

78/2. Makers of aluminium combs.

72/47. What is solicol, used by confectioners?

80/5. Makers of patent malt, for home porter-brewing.

79/17. Where can "French ash" be obtained?

66/3. Where can "7 lb. cloth sugar-bags, printed," be obtained?

66/47. *Notes.*—Address of maker of Duresco, a washable distemper.

47/32. *Almanac* would like to know how chemists who publish almanacs manage the accounts referring thereto, in regard to the expenses of publication and goods received in payment of advertisements.

Coming Events.

We insert notices of association and society meetings in this section free if they are sent to us, on postcards, by the Wednesday of the week before the meetings are to be held.

Monday, February 7.

Bradford and District Chemists' Association, at 9 p.m. Lantern-lecture, "The Scottish Alps," by Mr. W. L. Howie, F.G.S.
Society of Chemical Industry (London Section), Chemical Society's Rooms, Burlington House, at 8 p.m. (1) "The Curing of Malt in Relation to Colour and Value," by Mr. J. W. Lovibond; (2) "Clerget's Method of Estimating Cane-sugar," by Mr. A. R. Ling; (3) "A New Modification of Clerget's Method of Estimating Cane-sugar, Specially Applicable to Molasses and After-products," by Messrs. A. R. Ling and J. T. Baker; (4) "Note on the Estimation of Water in Invert Sugars," by Dr. L. T. Thorne and E. H. Jeffers.

Tuesday, February 8.

Glasgow and West of Scotland Pharmaceutical Association, at 8 p.m. Supper at Grand Hotel. Tickets (6s. 6d.) from Mr. D. Watson, 558 Cathcart Road, Glasgow.
Pharmaceutical Society of Great Britain, 17 Bloomsbury Square, W.C., at 8 p.m. "Bacteriology for Pharmacists," by Mr. Leo Atkinson.

Wednesday, February 9.

Midland Chemists' Assistants' Association, the Exchange Restaurant, at 9 p.m. Musical and social evening. Mr. L. Wakefield in the chair.
Brighton Junior Association of Pharmacy, at 9 p.m. "The Pharmacy Stakes: a Straight Tip!" by Mr. A. T. Jeeves.
Sheffield Pharmaceutical and Chemical Society, at the Society's Rooms, 37 New Surrey Street. Paper on "P.A.T.A." By Mr. J. W. J. Turner.
Manchester Pharmaceutical Association, Victoria Hotel, at 7.30 p.m. Paper by Mr. Greer.
Sanitary Institute, Parke's Museum, Margaret Street, W., at 8 p.m. "Purification of Water for Barracks, Prisons, and other Institutions." By Professor J. L. Notter.

Thursday, February 10.

Cambridge Pharmaceutical Association. Annual dinner at the Victoria Assembly Rooms, Market Place, at 8.45 p.m. Tickets, 3s. 6d. each, from Mr. B. Sidney Campkin, Hon. Secretary.
Junior Pharmacy Ball, Portman Rooms. Hon. Secretary, Mr. N. J. Henson, Beulah Hill, S.E.
Sheffield Pharmaceutical and Chemical Society. First chemists' ball, at the Masonic Hall, Sheffield. Tickets from any member of the Council, or Mr. J. P. Pater, Hon. Secretary (6s. single, 10s. 6d. double, including light refreshments).
Chemists' Assistants' Association, 73 Newman Street, W., at 9 p.m. Short papers by members.
Liverpool Chemists' Association, at the Royal Institution, Liverpool, at 7 p.m. "Michael Conroy, F.C.S.," an appreciation. By Mr. E. Davies, F.C.S. "Pharmacy in Russia." By Mr. P. H. Marsden, F.C.S.

Friday, February 11.

Edinburgh Chemists', Assistants', and Apprentices' Association, 36 York Place, at 9.15 p.m. Communications by Mr. Alex. J. Dey and Mr. J. Harris Burns.
Aberdeen Junior Chemists' Association, 21 Bridge Street, at 9.30. Questions and hat night.
Royal Institution of Great Britain, Albemarle Street, Piccadilly, at 9 p.m. "The Metals Used by the Great Nations of Antiquity," by Dr. J. H. Gladstone.

The annual dinner of the School of Pharmacy will be held in the Duke's Salon, Holborn Restaurant, on Wednesday, February 16, at 7 p.m. Professor Greenish, F.I.C., F.L.S., in the chair. It is hoped that there will be a good gathering of past and present students. Those intending to be present should forward their applications for tickets (price 5s.) as early as possible to the Hon. Secretary, Mr. T. E. Lescher, 17 Bloomsbury Square, W.C.

Chemists' Assistants' Association.—The twentieth annual dinner will be held in the King's Hall, Holborn Restaurant, on Thursday, March 3, at 8 o'clock. Tickets (5s. each) may be obtained of the Council and Stewards. Mr. Geo. Roe, 283 Lillie Road, S.W., is Hon. Secretary of the Dinner Committee.

The Secretary of the Junior Pharmacy Ball intimates that he has a few tickets (returned through illness) still in hand, although the regulation number had been sold.

